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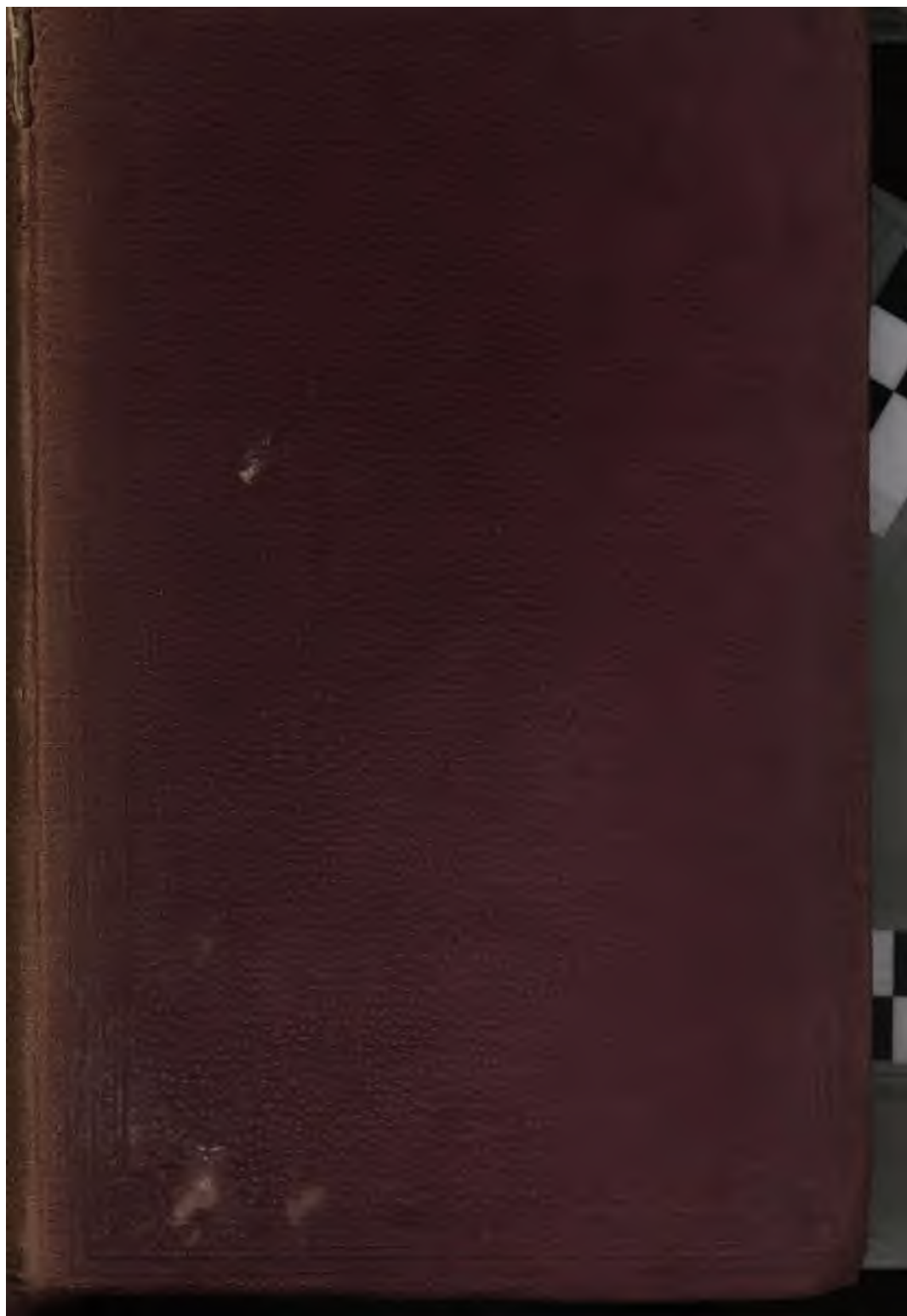
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## MODERN ARTILLERY.

By COLONEL <sup>P. L.</sup> MacDOUGALL  
"

AUTHOR OF

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## PREFACE.

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IN the following essays the reasoning which has been employed, and the lessons which have been drawn from it, are based on the experience afforded by past campaigns. To dogmatise on military subjects abstractedly must always be unsatisfying, and the conclusions probably erroneous; for the actual circumstances attending any military operation rarely, indeed never, permit the exact execution of a mode of action arbitrarily prescribed by theory. In the exact sciences, the elements of nature follow an invariable law; that is, the same result must always attend the same combination of physical circumstances. But War is no exact science; it must always be indeterminate, because the issue of events must always depend on the variable conditions of the sentiments, the motives, and the consequent actions of human beings. Thus, although the attendant physical circumstances of two different cases may be identical, the results may be diametrically opposed. In establishing rules for future guidance, therefore, it must be borne in mind that the number of combinations which may enter into the solution

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### *Errata.*

- P. 120, 3rd line from foot, *for* troops *read* flanks.
- „ 205, in the diagram, the three letters A' A' A' should be struck out, and Wellington's second position in rear of the French should be marked A' instead of A.



# MODERN WARFARE.

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## CHAPTER I.

### INTRODUCTION.

UNTIL within the last few years, the military profession stood alone, as that in which it was apparently thought that study and improvement might be dispensed with. Officers for the most part satisfied themselves with mastering the minutiae of the drill-book, and were content to ignore the principles, a correct knowledge of which could alone enable them to apply those acquirements with any useful result. That just reproach has been wiped away. It has been the enviable distinction of the present Commander-in-Chief that, during his term of office, the practical and scientific schools in connection with the army have been either established or greatly increased in efficiency.

Shoeburyness, Hythe, Woolwich, Sandhurst, and the Staff College, supply to the student an instruction in general and special branches of military science, as good, probably, as is to be obtained at any similar institutions in Europe, and on a plan far better suited to the English character than would be that on which the Continental schools of the same nature are conducted.

The establishment of great camps of exercise, such as those at Aldershot and the Curragh, affords opportunities

of improvement alike to generals and subordinate officers, although it may be doubted if the system on which the great field-days are conducted at those places is the best possible.

The practice of manœuvring the whole force in one body against an imaginary enemy, has its disadvantages. In conducting the progress of a sham battle, few generals can escape anachronisms and absurdities. Neither men nor officers take the same interest in them, nor derive anything like the same advantage from their lessons, as they would do if the force were divided into two parts, manœuvring against each other with a specified object. According to the present custom, it requires a very able and practised manœuvrer indeed to keep the whole of his force in sufficient relative employment. The men are apt to become listless and unsteady; indeed, it may confidently be appealed to all regimental commanding officers to say if their men do not rather lose than gain in steadiness by an Aldershot campaign.

This is partly attributable to the weariness of mind induced by keeping a great part of the force not unfrequently halted for an hour in the same spot, during the progress of a field day; partly to the system, which cannot be too much deprecated, of assembling the men under arms earlier, and keeping them standing longer, than there is any occasion for. Soldiers should never be kept under arms one moment longer than is absolutely necessary.

But what is the practice? The regiments form on their private parades at an early hour, to undergo the necessary regimental inspection before marching off to the place indicated for the assembly of the division; and is it not the case that even on these private parades they are mustered earlier than is needful? The regimental inspection over, they march off to the general rendezvous, and here



they are frequently detained a wearisome time before the business of the day begins. Far from being useful, this sort of thing is positively hurtful; it destroys the steadiness of the men, and their minds are fatigued before their bodily work commences. Every endeavour should be made to render a military life as little irksome as possible to the good soldier, and everybody knows that useless labour is the most irksome of all. It is for that very reason that the principal punishment inflicted in military prisons is the hateful task of walking between two piles of heavy shot, and removing one shot at each journey from one pile to the other—an injudicious punishment; for it is a useful lesson to the man who has misspent his time, that Providence has mercifully endowed productive labour with a large compensation in the interest that always attaches to progress which is apparent.

One argument in favour of dividing the force on a field day into two bodies which should manœuvre against each other, is, that thereby the brigadiers—who now learn nothing from a general field day—would greatly benefit. Under the present system, the only class of officers who can derive much benefit from the divisional field days are those serving on the staff; to whom the practice of the different formations is always valuable, though in a mechanical point of view only. The commander of the whole is the only other individual who can benefit by the practice of a divisional field day.

To the brigadiers and regimental officers, a brigade field day is far more improving. But by the division of the force into two supposed hostile bodies, all might derive both interest and instruction, who really desired the latter. Principles would then be brought into play instead of mechanical details; and a mistake committed would be at once apparent, from the penalty it would evidently incur.

It is the brigadiers especially who would benefit the most. Each in turn, without regard to seniority, should have the command of one or other of the opposing bodies; and the general-in-chief would be far more usefully employed in superintending the instruction of his brigadiers by this method, than in himself conducting an aimless and uninteresting field day against an invisible enemy.

It is especially practice in moving masses of troops that our brigadiers require, and which the country has a right to expect will be afforded them by the great camps, for these are the officers from among whom our divisional generals will probably be selected in the next war. No man, however perfectly he may have all the manœuvres at his fingers' ends, can move even so small a force as 5,000 men quickly and truly, without practice.

It is, doubtless, one thing to move troops quickly and correctly on a peaceful field, another to do so before an enemy; but no man can possibly do the last without having acquired by practice a facility in the first.

The best handler of a body of troops on parade that the author has seen is, beyond a doubt, the present Commander-in-Chief; and this results from the fact that His Royal Highness's natural aptitude, which is great, is improved by constant practice.

With him as the commander, the different portions of a force are kept in constant movement; they are also moved correctly; there is no hesitation, and consequently no time for listlessness. This will be admitted by all who have witnessed his field days.

It is with diffidence the author here touches on a point *of the most vital importance*, in which it appears to him strongly that the British army is deficient, viz.: rapidity of movement. The basis of all excellence in manœuvring is rapidity, correctness, and steadiness combined; the first

element becomes more important every day, and success in attacking any open position which is defended by the present field artillery, is not to be hoped for, without imparting to the attacking forces the utmost speed which is compatible with the other two above-named conditions. The actual experience of the American contest is, that no open positions have yet been successfully attacked;\* the assailants have always been repulsed, though in several cases very superior in numbers. But, apart from the necessity of exposing the attacking troops during the shortest possible time to the fire of artillery, rapidity in reaching a given point on a field is of as much importance to the issue of a battle, as rapid concentration at a given point in the theatre of war is to the success of a campaign.

In this particular the French are far before us; and if we should ever become opposed to French troops, we should expiate severely this inferiority until experience should teach us to remedy it. It is objected that the steadiness, for which our men are preeminent, would suffer from the loose habits engendered by rapid marching; but not so. Sir John Moore's light division moved as rapidly as any troops in the world, yet their steadiness did not suffer. There is no reason why our men should not manœuvre at the double with as much steadiness as at quick time, but that of want of habit. The steadiness and tenacity of the Anglo-Saxon are innate in his character—in himself, not in his pace. The French soldier is trained for his work as a horse is trained for a race; and we might advantageously imitate the elaborate course of athletic and gymnastic exercises in the French army, to develop the muscle, the speed, and the endurance of the

\* The two instances of Corinth and Chancellorsville, which may be cited against this assertion, were of the nature of a surprise, and the last-named battle was fought in a thickly-wooded country.



soldier. How can it be expected that men carrying knapsacks should ascend a hillside at a rapid pace, to engage an enemy fresh and prepared at the top, with any hope of success, without good wind and muscles hardened by use? The men would arrive at the top straggling and out of breath, and all the chances would be against them. Sir John Moore, at Shorncliffe, was accustomed to train his brigade on broken ground and steep hillsides at the double, and he brought their drill to such a state of perfection, and their bodies to such a state of endurance, that when halted suddenly half-way up a hill their formation would present a firm and even line.

The assemblage of large bodies of troops in one camp ought to render it easy to reduce the proportion of guard and fatigue duties in each battalion. It should be a matter of careful calculation to diminish the routine duties of the soldier to the utmost possible extent in every situation, and to devote the time so gained to exercises in the gymnastic school which should be attached to every regiment or brigade.

The volunteers of Great Britain have shown a spirit and energy for which there is no parallel to be found in history, and which, indeed, could only be possible among a people of very advanced intelligence and political education. Whole communities have run to arms to face a pressing and palpable danger, and to defend their hearths and homes from violation by a present enemy; and of this the Confederate States of America afford a remarkable example: but there has been hitherto no such spectacle as that presented by England, of the uprising of a people to avert a danger which, however possible or even probable, is still in the future, and which many disbelieve utterly. The efficiency which has been already attained by most of the volunteer corps as military bodies is most creditable—

by some of them even admirable; and the competition in rifle-shooting to which the movement has given birth, is making of the people of Great Britain the first marksmen in the world. The present long range of projectiles in general imparts to all irregulars, when acting in unison with regular troops *in defence*, a greater value than they formerly possessed; in fact, their value in defence increases in the same ratio with the range of projectiles: but some of our volunteer corps might take their place beside troops of the line in any line of battle, and the fine shooting of the whole promises to make any attempt to invade England a desperate and hopeless undertaking. The practice of brigading volunteers occasionally with troops of the line is good; even the volunteer field days and sham fights, although in a merely material point of view injurious to the steadiness and discipline of all but the very best corps, have their moral advantage in keeping up the prestige of the force, and the pride and zeal of its individual components. But it should be seriously impressed upon the different corps that their efficiency, when acting as parts of a large force, must absolutely depend on their drill and discipline as isolated battalions, and to perfect these their principal efforts should be given.

Many volunteers are ardently desirous to become good soldiers, and these, while making themselves perfectly familiar with the manœuvres of the drill-book, should not stop at this—the mere A B C of the military profession. They should study the spirit of the art, to learn which theoretically is easy to any person of average intellect. It is impossible to say how soon such knowledge may be found practically useful in the turbulent scenes which, in all human probability, the present generation will be called upon to witness.

The clouds even now showing above the European

horizon are largely charged with electricity; the wind of popular violence, or of kingly misrule, may cause them quickly to overspread the heavens; and a small concussion in a remote corner, to burst forth in lightning and tempest and general confusion.\*

The following quotations from a work† of Marshal Marmont are entitled to attention, both on account of the ability and great experience of the writer, and of their bearing on the subject of the chapter to which they form the conclusion.

‘ Un autre devoir, qu’il ne faut jamais négliger, c’est de maintenir les soldats dans la plus grande activité.

‘ L’activité doit être pour eux une seconde nature. Comme presque tous les hommes, ils sont disposés à la paresse; c’est leur rendre un grand service que de changer encore cette disposition. Le repos et l’oisiveté diminuent les forces et amoindrissent le courage. La santé, l’énergie et la valeur morale découlent ordinairement d’une vie endurcie par les fatigues et consacrée au mouvement.

‘ Les exercices militaires sont les premiers éléments de cette activité que je réclame; mais ils ne sont pas les seuls. Il faut d’abord qu’un soldat acquière l’instruction la plus complète; *quand il la possède, l’occuper de détails qu’il connaît, qui ne lui apprennent plus rien, c’est un moyen infaillible de lui rendre son métier antipathique.*

‘ Les grandes manœuvres, offrant un beau spectacle, sont seules constamment de son goût; mais on peut encore créer de nouveaux intérêts pour lui, en faisant naître l’émulation dans les jeux de diverses natures. On peut aussi l’employer à des travaux publics importants, et associer comme récompense l’histoire des régiments aux

\* Written in the autumn of 1862.

† Esprit des Institutions militaires.

*And it!*



créations qu'ils auront exécutées en leur donnant leur nom. C'est ainsi qu'on accomplirait avec économie de belles et grandes choses, en même temps qu'on développerait chez les soldats des idées de gloire et de grandeur immortelles, dont on ne saurait trop nourrir l'esprit des gens de guerre.

‘ Dans le cours de ma vie militaire, je n’ai jamais laissé échapper l’occasion d’appliquer ce principe ; et je n’ai eu qu’à m’en louer, tant pour le but immédiat que pour la santé et l’esprit des troupes. Mais j’ai eu soin de ne jamais sortir de certaines limites, et de ne compromettre d’aucune manière l’esprit militaire dont la conservation et le développement ne doivent jamais cesser d’être le but de tous les efforts des chefs. L’Égypte, la Hollande, la Dalmatie, présentent encore aux regards ces monuments de notre grandeur passée et de nos mœurs d’alors. Dans ce dernier pays, 80 lieues de belles routes, construites dans les localités les plus sauvages, au milieu des plus grandes difficultés naturelles, ont laissé aux habitants des souvenirs honorables et qui ne périront jamais. Des inscriptions gravées sur des rochers disent sans doute encore aux voyageurs que ces travaux ont été exécutés par tels régiments et tels colonels. Et quand ces braves soldats, dont le souvenir m’est si cher, quittaient leurs outils pour reprendre leurs armes, avec quel éclat ne se montraient-ils pas sur les champs de bataille ! Quelle force, quelle énergie, n’opposaient-ils pas aux plus longues marches, aux plus grandes fatigues !

‘ Dans les moyens complémentaires de la formation des troupes, je mettrai au premier rang l’établissement des grands camps d’instruction. Eux seuls, pendant la paix, donnent aux troupes les habitudes et l’instruction qui leur conviennent. L’esprit militaire ne se développe qu’au milieu des dangers de la guerre, et des réunions qui en sont l’image. . . . Je ne parle pas de ces rassemblements



momentaires, qui se voient quelquefois dans différents pays, et dont l'objet est plutôt d'offrir un spectacle que de donner de l'instruction et de développer les facultés, mais de ces camps de ma jeunesse, dont est sortie la plus belle et la meilleure armée qui ait existé dans les temps modernes, et qui, si elle est égalée, ne sera certainement jamais surpassée : je veux dire l'armée qui campa deux ans sur les côtes de la Manche, et qui combattit à Ulm et à Austerlitz.'

## CHAPTER II.

## ON THE INFLUENCE OF THE IMPROVED FIRE-ARMS IN WAR.

THE wonderful results obtained by rifled cannon and muskets must, one would suppose, ultimately introduce some changes in the manner in which battles are fought. It is certain, however, that the change can only be in matters of detail, not in principles which are unalterable.

As yet a sufficient number of facts have not been collected as data whereon to found any reliable judgment; and, indeed, while the elements of the military atmosphere are undergoing so much disturbance, and the conditions appear to be so constantly shifting, it needs the experience of several campaigns between manœuvring armies before it would be safe to dogmatise on the subject. Even the contest which is being waged in America on a gigantic scale, adds little that is definite or trustworthy to our stock of experience; the conclusions of one day being often overthrown by the events of the next.

It was generally anticipated that one effect of the improved arms would be to increase the slaughter of a battle, and to shorten its duration. Up to the present time, however, that anticipation has not been fulfilled. Marlborough's battles were quite as bloody as those of our own time; and the great battles in America, which have more than once been prolonged over several days of desperate fighting, show that the present fire-arms have no effect in deciding the issue of an engagement more quickly than of old.

At Borodino, out of about 260,000 combatants, 95,000 were killed or wounded.

At Albuera, where the battle lasted only four hours, out of about 54,000 combatants, 15,000 were killed or wounded; but this does not by any means represent the just proportion under the actual circumstances, for the brunt of the battle was borne by the British troops, who lost 4,300 in slain or disabled, out of 7,500.

At the battle of the Alma the British force engaged was in round numbers 25,500 men: their loss in killed and wounded was 2,002. Of the French loss it is impossible to speak for want of any reliable information.

The Russian force of 39,000 lost in killed and wounded, according to the official returns, 5,709; so that in this, the first battle in which the improved muskets were used, the proportion of loss to the numbers engaged was considerably below the average supplied by the wars of Napoleon.

The American statements of numbers engaged, and casualties in their different battles, are as little reliable as the French; but the proportion of killed and wounded is in all of them certainly below that of the principal battles of the early part of the present century.

Notwithstanding these figures, it may be expected that, as a general rule, after the improved weapons shall have been longer in use, battles will be decided more quickly, and the destruction of life will be greater in proportion to the duration of an engagement, than of old; although it is very probable that the result of a battle will be obtained at a less *absolute* cost, referring only to the numbers engaged.

The greatly increased range and accuracy of field guns will undoubtedly bestow on the defence of a position an advantage over the attack which it has not hitherto pos-

sessed—that is to say, in an open country. It will be almost impossible to force a position deliberately prepared for defence, the guns of which, protected from counter-battery by earthworks, sweep all the approaches to a distance of 3,000 yards to the front, and with an accuracy that was unknown to the shorter range of the obsolete ordnance.

No troops could march to the attack exposed during half an hour to the destructive effect of the Armstrong shell, with any other result than that of certain defeat. Hence will arise an important modification in the mode of conducting military operations.

The attack of such a position must either partake of the nature of a siege, with approaches, &c.; or it must be made by night: that is to say, the cover of night will be employed to attack the outposts, and to pass over the open ground which intervenes between the outposts and the position to be assailed, with the view of commencing the attack with the earliest dawn. On the other hand, it must be the business of the defenders to keep the enemy beyond that distance from which it would be possible for him to molest the position by his fire or otherwise. This was, of course, always so; but the improvements in gunnery, while they leave principles untouched, affect very materially the elements of *time* and *distance*—hence the advanced posts must be placed much farther to the front than formerly; these advanced posts will require to be strengthened by more elaborate works, and a greater number of intermediate supporting bodies must be posted to link them with the main body, in proportion to their increased distance from the position. That distance must, of course, be regulated by the nature of the ground, the advanced posts being established permanently, with a view to keep the enemy beyond shelling range, where that is possible;



although it must be evident it will not always be possible to occupy heights within such range. It appears, therefore, that the labour of the troops, as well as the responsibility and anxiety of their commander, will increase in proportion to the range of projectiles.

But the difficulty and uncertainty attending the assault of a position under the present conditions, will assimilate the strategy of every campaign to that which is the true method of making war in mountains. The great art of a general, even in offensive warfare, will consist in taking up such positions as, while they cover his own line of retreat, will threaten the communications of his enemy, and so oblige the latter to become the assailant.

Speaking theoretically, it appears probable that great battles, fought in an open country, will be decided principally by artillery, and that the contending armies will be less likely than heretofore to come into actual personal collision. If this should be so, the comparative value of infantry would diminish, and a general might safely hold a strong defensive position with comparatively inferior troops, supposing his artillery to be numerous and good. Such changes would assuredly be disadvantageous to England in a Continental war, for the strength of her armies has always hitherto lain in the infantry, whose small number in comparison with that of other nations has been compensated by its superb quality. In artillery battles, too, the British infantry *rush* would be neutralised. Still we may expect much compensation in the undoubtedly superior material and practice of both artillery and infantry; and as regards the defence of the country against invasion, we should derive a very sensible advantage from the changed conditions above stated; for,

*First*, it has been already shown that the effect of the improved ordnance will be to diminish the difference

in value between volunteers and troops of the line, for the defence of a position.

*Second*, in marching through the country, the invaders, ignorant of the localities, and surrounded by a hostile population, could not safely move except in masses; while the volunteers, knowing every inch of ground, could harass the enemy's communications with his ships, hang on his flanks, and annoy him with their fire from a safe distance, too far to be reached by infantry; and in a country of lanes and hedges, his cavalry would be a lost arm.

If the effect of the improved weapons on infantry is to reduce its comparative value, their influence on cavalry must be nearly to destroy its utility altogether as an offensive arm on the field of battle. It will still be available to protect the flanks and rear of a military position, but it can hardly be expected that cavalry can manœuvre on the ground which separates two hostile armies, without running the risk of utter destruction. In pursuit, or in acting on the communications of an enemy, its value remains much as before, although its losses when opposed to guns or infantry must increase. If this view be correct, heavy cavalry has received its death-blow; and the problem will be to render the organisation of light cavalry more perfect, and to make it more moveable than at present. Our light cavalry horses are generally excellent, although the rounded appearance so pleasing to the eye, in too many cases covers a want of power and endurance. Wiry compact animals with plenty of bone should be sought after, and their load diminished by sacrificing something of the inches of the rider, and reducing the weight of his equipment to the lowest possible figure. The carbine should be banished, and a good revolver substituted; although it is with hesitation this opinion is advanced, for some experi-



enced cavalry officers give a decided preference to the former, solely, however, on the ground that, when dismounted, troopers would be more efficient in defending a house, wall, hedge, &c. The answer to this is, that troopers in such a service are quite out of place. Their proper place is the saddle, and their proper element is in a sudden dash or *mêlée*, in which surely a revolver would be quite as true of aim as a carbine, less cumbrous, and would afford the protection of several shots in place of one. Where houses, walls, or hedges are to be defended, let them be so by infantry, whose arms are far better suited to the business, and whose force and attention would not be distracted by having horses to look after. '*Ne sutor ultra crepidam.*' Napoleon long occupied himself with the endeavour to supply the want of defensive power in cavalry; yet the utmost end he proposed to attain was to give it such an organisation and instruction that 3,000 troopers should, when dismounted, be able to withstand 2,000 foot soldiers. He ultimately relinquished the idea from a conviction that he would only spoil good troopers to make bad foot soldiers, and at a great sacrifice of economy when the relative cost of maintaining infantry and cavalry is computed.

But in no particular of land warfare will the revolution effected by the improved ordnance be more important than in siege operations. It is true that at an enormous cost a fortress may be so protected that to breach it will be impossible. On the other hand, any town may with certainty be destroyed by shells from a great distance, and this fact destroys the utility of many of the strongest European fortresses. No town will ever again be surrounded by a fortified *enceinte*; and important places will be protected by a series of detached forts, mounting the heaviest ordnance, and of area so contracted as to present

a small mark for shells; from which missiles, also, the comparatively small garrisons will be provided with shelter. In short, entrenched camps will take the place of regular fortresses. It seems not improbable that in future warfare the blockade will supersede the regular siege, and that history will be spared the recital of the appalling slaughter of a Badajos or San Sebastian.\* In America, the labour and the human life which were expended in conducting the regular siege operations against Vicksburgh and Port Hudson, did not advance in the smallest degree the capture of those places, which fell from want of provisions precisely at the time they would have done, if the investing forces had limited their operations to a mere blockade.

There has been some talk of protecting the forts building at Spithead, for the defence of Portsmouth, with a coating of ten-inch iron plates, and it is calculated that this thickness of armour will be effective to resist the most powerful gun which can be carried on a floating structure—the only trial to which it can be exposed in that situation. It appears to be the belief, however, that a thickness of ten inches will not be sufficient to resist a gun, yet to be constructed, firing from a solid foundation, and which no floating structure could carry. This is mere theory; practically, it will be found that floating structures will enable an assailant to place in battery as powerful ordnance as can ever be transported by land to any distance from water carriage.†

\* In a recent experiment, the Armstrong 100-pounder, at the distance of 2,000 yards, made a breach 30 feet wide in a well-rammed earthen parapet, 25 feet thick, in three hours. How would it be possible to construct breaching batteries, or to push approaches, in the face of such a gun?

† Since this was written the Northern turret ship 'Weehawken' has been armed with 440-pounders, and by means of these she absolutely knocked to pieces, in three shots, the Confederate ironclad 'Atalanta,' which was protected by four inches of iron (in bars) backed by four inches of timber.



The difficulty of transport must inevitably impose a limit to the weight of the siege gun; and if it be once established that forts can, by iron plate armour, be made absolutely impervious to direct fire—as in practical military operations they certainly can be—then breaching guns for land service will fall into disuse, and will be limited to offence against iron-plated floating structures, whose weight of armour must be regulated by the conditions of flotation. It is evident that guns mounted on the sea-board must have a great advantage over any that can be brought to oppose them, as there is no limit to the weight of such guns imposed by the difficulty of carriage.

It seems on the whole probable that, in offensive operations generally, the breaching gun will fall into disuse, and that attention will be turned to shell practice, both with guns and mortars.

As regards naval operations, the change which the ships of war of all nations are undergoing, as a consequence of the improved ordnance, will be an advantage or a disadvantage to Great Britain, according as, in any war in which she may engage, she may be called upon to repel invasion or to enforce it. For all purposes of littoral defensive warfare, iron-plated floating batteries and the improvements in gunnery confer an advantage on the defensive far greater than it formerly possessed. For, however obscure as yet may be the conditions of combat between ships' guns and ships' armour, it is certain—

1st.—That floating structures, intended simply for the defence of harbours, will always be able to carry both thicker armour and heavier guns than sea-going vessels.

2nd.—That forts on solid foundations will always be able to carry thicker armour and heavier guns than either; though it may be doubted if floating batteries may not carry as heavy guns as can be practically serviceable in forts.

These facts, if properly applied by England, should enable her to render her harbours and dockyards absolutely secure against all attacks by sea, and should go far to cure the intermittent fever under which the nation has been suffering for some years past of dread of invasion.

So far the advantage derived by England from the new conditions of warfare is very decided, and can hardly be exaggerated. But there is a reverse to the picture; for although England will never embark in an aggressive war, yet if a contest be forced upon her, her naval operations must be essentially offensive. If we had unfortunately been forced into a war with the United States at the time of the 'Trent' seizure, every American seaport would have been at the mercy of our fleet; the Americans at that time possessing no iron-plated ships, nor a single gun which could make the smallest impression on the weakest of our ironclad frigates. But in the event of a future war, our opponents would be probably equal to ourselves, and their harbours would be defended by floating batteries and iron-plated land batteries superior, both in offensive and resisting power, to any vessels which could cross the Atlantic to attack them.

In general terms, then, the harbours of an enemy will be far more secure against our navy than heretofore; and our great preponderance in wooden vessels becomes comparatively useless; these must always play a humble and secondary part, molesting the commerce of the enemy and looking after his privateers: but as regards fighting ships, we start from the post on nearly equal terms with the other great maritime powers in the task of constructing a new navy.

As regards the conditions of combats between ships' guns and ships' armour, up to the present time, the victory remains to the latter. No reliable judgment can be formed from the experience of the American contest, where the armour

employed is as yet very inferior. Our ironclad 'Warrior' is covered with an outer skin of iron  $4\frac{1}{2}$  inches thick, and this is backed by 18 inches of solid timber, which is again backed by an inner iron skin, five-eighths of an inch in thickness. Thus there are upwards of five inches of iron and 18 of wood to be pierced by any projectile before the decks can be reached.

And although a gun has actually sent a shell through a seven-inch plate at a distance of 800 yards, that gun was far heavier than it is as yet considered safe to place on board a ship. It is, however, expected that the completion of the 'Royal Sovereign' shield ship, now building at Portsmouth, will set this question at rest, by demonstrating that she can carry a gun powerful enough at 800 yards to pierce the greatest thickness of armour that can be carried by sea-going vessels; and in that case the conditions of a naval engagement will return to their old state.

The subject of the Spithead forts has attracted so much attention in England, and is one on which opinions are still so divided, that this chapter would be incomplete without some notice of so important a controversy. It has lately been decided by the House of Commons that the construction of these forts, suspended for a while, is to be proceeded with without delay. The grounds of this decision are, in brief, somewhat as follows:—

These forts, 2,200 yards apart, it is expected will command the whole of the navigable channel between the mainland and the Isle of Wight. Although no gun has yet been discovered which can penetrate an ironclad of the 'Warrior' class at 1,100 yards' distance, yet we have got a gun which at 800 yards can do so; and there is just reason to believe that before long we shall have a gun which will be capable of the same performance at 1,100 or even 1,200 yards' distance. If these anticipations shall be realised, it is assumed



that these forts will be able to destroy any hostile vessels which may endeavour to pass between them. But it is not intended to depend on the forts alone in case of an attempt by a hostile flotilla to pass them; the enemy would be opposed by a line of battle composed of ironclads stretching between the forts, and resting upon them as on impregnable flanking supports.

It must be conceded that the passage of an enemy would be effectually prevented by the above arrangements. But the advocates of those works say that even without the cooperation of the fleet, which may not be available at that point just when wanted, the forts alone would ensure the destruction of any enemy's vessel which should attempt to pass them; and it is admitted that they would be a failure if that were not to be the case.

Let us admit, for the sake of argument, that we have a gun which will penetrate the thickest armour that can be carried on ships, at the distance of 1,100 yards; and taking the case of one vessel running the gauntlet between two forts—let us ask the question—during what period of time would that ship remain within the required range, steaming ten miles an hour? At that rate a vessel would pass over 293 yards in one minute; mathematically speaking, she would only come within range of both forts when she reached the exact middle point between them, and would pass out of range again as soon as she passed that point. But, practically, we shall be quite safe in assuming that four minutes, during which the vessel will pass over 1,172 yards, is the very utmost period within which she could receive any damage from the fire of the forts. And if we turn to the reports of the experiments at Shoeburyness, and consider the length of time consumed on these occasions in laying the guns properly before a shot is fired in earnest, we may estimate how very small are the chances

that an enemy's vessel running between two of the Spithead forts would be injured by their fire, supposing we had the gun, which, be it remembered, we have not as yet.\* Such a gun would only restore the old conditions of warfare as between guns and ships. Our wooden ships were never deterred from running the gauntlet past shore batteries, where a sufficient object was in view, by the certainty that a round shot would go through their sides, or by the fear of the greater damage to which they were liable by the bursting of a shell between decks.

The above, however, does not by any means exhaust the subject, for the most important element of the question remains to be considered.

The principal object of the Spithead forts is not to prevent hostile vessels passing between them; but to prevent an enemy's vessel from approaching near enough to Portsmouth dockyard, to throw shells into it. Will the Spithead forts, with the aid of the most powerful ordnance which is now, or which sanguine inventors hope soon will be, at our command, effect this required object, without the fulfilment of which they will be a failure?

Admitting that we may shortly have a gun whose effective penetrating range is 1,100 yards,—Sir John Hay stated in the House, that we now have guns ‘which, 1,500 yards outside the forts, would throw shells into the dockyard;’—that is to say, armed with such guns, an enemy's vessel might lie 400 yards beyond the effective penetrating range of the great gun in expectancy, and shell the dockyard in perfect security. But it would be quite unnecessary to keep at such a distance.

Mathematically speaking, an enemy's vessel would not come within the range of two adjacent forts, until it should reach the exact middle point between them; practically,

\* See note at the end of this chapter.

then, a vessel advancing as nearly as the eye could judge on the middle line between two adjacent forts, could commence operations when about 700 yards from that middle point; this would give a distance of about 1,400 yards from either fort, and of 7,700 yards from Portsmouth dockyard,\* a distance from which, if Sir John Hay's statement was correct, that establishment might be very uncomfortably shelled. It should be remembered, moreover, that in the case under consideration, improvements in gunnery will tell both ways. We cannot increase the penetrating power of shells, without at the same time increasing the range of those missiles; and it seems probable that whatever penetrating range we may ultimately achieve for guns mounted on a fixed point, such as one of the Spithead forts, an ironclad vessel may lie beyond that effective range, and still throw shells into any large area like the dockyard, situated 7,000 yards in rear of such fixed point. It is obvious, too, that every increase in range must be adverse to a stationary mark of large area and in favour of a small movable mark.

If we take the experience of the siege of Charleston as a guide, we know that the besiegers can throw shells into the town from a distance of 8,500 yards.

To recapitulate—according to the above reasoning—it appears that, supposing the Spithead forts built, an enemy's vessel could, from a distance of 7,700 yards, shell Portsmouth at its leisure, so far as the fire of the forts is concerned; if this be really so, those structures will remain a laughing-stock to the next generation,—costly monuments of hasty legislation, and of the improvements in gunnery which render them useless.

If it were certain, *first*, that the proposed forts would be able to destroy any vessel attempting to pass between

\* The proposed forts are 7,000 yards in front of Portsmouth dockyard.



them; *second*, that their position is such, that an enemy's squadron could not shell the dockyard without being destroyed by their fire,—then it would be right and prudent to undertake the great cost of their construction. Far from this certainty existing, however, the probabilities, even, appear to be the other way; and it would seem more judicious to substitute for them floating structures of great strength, which could mount as heavy guns as could practically be used in forts, and which could yet shift their position so as to conform to the exigencies of any new discoveries in artillery science. They would thus form that flanking support and protection to the swifter vessels which the forts are intended to supply, but which the latter would entirely fail to do, so soon as the swifter vessels are obliged to advance beyond their line, to engage at close quarters the bombarding vessels of the enemy, the only means by which these last could be interfered with.

Floating batteries could always be made superior to any possible assailant, both in offensive and resisting power; they could for the present be placed between the shoals on which the foundations of the forts have been commenced—a great advantage, since the shoals guard themselves—and in such numbers that they might cross their fire at the distance of 500 in place of 1,100 yards; while a line of battle, resting on these as flanks, should be formed by the 'Warriors,' &c., of the fleet.

The advocates of forts *versus* floating batteries say that the latter would be far more costly to keep in repair: to this it is answered—the question does not lie between two schemes of equal efficiency, and unequal cost, but between efficiency and probable uselessness, which is dear at any price.

The problem is to find a substitute for the forts which

shall combine their offensive and defensive capabilities with the possibility of a change of position: and this problem, the author believes, has been solved by an invention of Captain Adderly Sleigh, himself a sailor, whose original object was to supersede the ruinously costly structures raised from the bottom of the sea for the protection of harbours, by floating breakwaters at one tenth of their cost.

The simple reasoning on which he established his plan was as follows:—

The force exercised by a wave against a sea wall is not a constant force or pressure, but a succession of blows more or less violent, according to the force of the storm by which the successive waves are impelled.

If the sea wall be upright, it will sustain the full force of each wave. Incline the wall, however, and the force decreases with the number of degrees of elevation. The force, a maximum against a perpendicular surface, or when the elevation is  $90^\circ$ , becomes  $0^\circ$  when the surface is horizontal.

Captain Sleigh, therefore, gave the front surface of his breakwater, in other words the sea wall, the same inclination as that which a sea beach naturally assumes under the action of the waves, that is to say—a slope of  $15^\circ$  with the horizon. The force of a wave, therefore, dashing against this inclined front is, in comparison with the force of the same wave acting against an upright wall, as  $15^\circ$  to  $90^\circ$ , or as 1 to 6.

Here we find a diminution of  $\frac{5}{6}$  of the force due to the inclination; but a further diminution results from the absence of rigidity of a floating body which has a free movement in the water backwards and forwards. This free movement is obtained in connection with permanency of position, by attaching at certain distances, along both



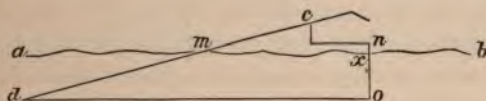
the front and rear of the structure, very heavy chain cables having a great deal of slack, which are fastened at the other end to permanent moorings, laid down at the bottom of the sea.

Thus a wave impelled by a violent storm dashes against the front surface of the breakwater, and  $\frac{5}{6}$  of its direct force being lost by reason of the inclination, the remaining  $\frac{1}{6}$  exercises on it a horizontal pressure to which the floating structure slowly yields by receding. Now comes the action of the mooring chains, which are analogous in their effect to the buffers of a railroad carriage. If these chains were *taut* or rigid, they might perhaps either snap under the shock, or drag their moorings; but the long slack and their weight act as a spring, and before they become taut so as to sustain any violent strain, the action of the wave has ceased, and the reaction of the mooring cables then draws the structure quietly forward again into its place, to sustain a succession of similar shocks from succeeding waves, yielded to and recovered from in the same manner.

Not being a sailor, the writer is unable to speak with authority on the one point on which alone a landsman is incompetent to judge, viz.: the possibility of laying down permanent moorings that may be depended upon; but the most eminent practical and scientific sailors England could produce, pronounced in favour of Captain Sleigh's plan. As regards the strain on the cables, there is no analogy whatever between the floating breakwater and a ship riding at anchor. The most dangerous force to the stability of a ship's cable is not the lateral action of the waves against the side of the vessel, but the perpendicular action of the waves beneath her. Floating on the surface of the water and acted on by every wave, it is a marvel that any cable can resist the violent upheaving of the bow. But the exemption of the floating breakwater from this

disturbing cause is obtained by adapting the structure to the following well-known fact, viz.: that, even under the influence of the most violent storm, the agitation of the sea is only on the surface. In the Atlantic, the disturbing influence may extend at times eighteen feet below the general surface; in the English Channel, fourteen feet is the utmost depth to which the influence of a storm extends. Below that depth lies a mass of water unvaryingly still.

The stability of the breakwater is ensured by prolonging its front surface beneath the water line, until it reaches a point three feet below the depth where the water is always still, that is to say, in the English Channel, to a point seventeen feet perpendicularly below the level of the sea. Thus all disturbing force from beneath is completely excluded, and the lateral shove is the only force it is called on to sustain.



In the diagram,  $c d o n$ , represents a section of the breakwater;  $a b$ , the level of the sea. It is clear that on account of the large area submerged ( $m d o x$ ), it must possess an immensely greater buoyancy or power of flotation than any structure in the shape of a ship, and would, therefore, bear proportionally heavier armour and ordnance; not so heavy theoretically as granite forts, though, practically, there is little doubt it could carry as heavy armour and guns as could usefully be employed in forts. It is sufficient to say that the structure may be of any length or of any shape. Its construction in separate lengths or compartments, would both facilitate necessary repairs, and obviate the strain to which a long rigid frame would be exposed from the unequal action of the waves

along its front. It may assume the shape of a fort, and it could be towed into any position required. Its capabilities to bear the heaviest armour and the heaviest guns which it is proposed to put into the forts, could easily be tested by a model at a trifling expense.

The above details, given from memory, do not by any means convey an idea of the ingenuity and merit of this invention. Captain Sleigh alone is capable of doing it justice. He submitted his plans to the Defence Commission, but the Commissioners, though thinking well of the idea, gave the preference to solid forts.

If the reasoning be correct on which the invention is based, it will combine the power and invulnerability of a fort with the mobility of a floating battery; experiment alone could establish this, and it seems a pity that before any further expense is incurred in building forts at Spithead, the same sort of trial should not be vouchsafed to an invention which may be a great possible benefit to the nation, as is daily accorded to guns and shields, many of which are only proved thereby to be useless.

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#### NOTE.

This chapter was written in November 1862. Since that time guns have made a great step in advance. We have now a gun capable of being mounted in a turret, and able to send a shell through the thickest armour which can be carried by sea-going vessels. If it can be proved that the same gun is available as a broadside gun, the controversy between the offensive and the defensive power of sea-going ships will be decided once and for ever in favour of the gun.

Again, if the Armstrong 600-pounder can achieve all that is claimed for it by its advocates, it will go far to justify the construction of the Spithead forts. It is confidently expected that the effective penetrating range of this tremendous engine against ironclads will be found to be at least 1,500 yards. It has already been demonstrated to



be 1,200 yards. Those who have witnessed the practice assert that the accuracy of aim is so wonderful that, taken in conjunction with the velocity of the projectile, it would make certain of hitting the fastest-going steamer, passing it broadside on, at every shot when once the correct elevation is ascertained. Supposing that to be the case, it would be impossible for an enemy's vessel to pass between any two of the Spithead forts on which the 600-pounder should be mounted, without being destroyed. For the different ranges represented by the possible course of any such hostile vessel would obviously be marked by buoys, the correct elevation for which would be determined to a nicety beforehand.

This does not, however, entirely settle the question as to the possibility of bombarding Portsmouth from a distance; but it must be allowed it would greatly increase the difficulty and danger of such an attempted operation. The Armstrong 100-pounder, which is probably the best shell gun we have as yet, obtains a range of 7,040 yards with 25° elevation. It is believed that no means have yet been devised for giving ship guns that elevation; but it is conceivable that heavy guns mounted in a turret could by means of a vertical embrasure obtain any required elevation. If so, then, speaking theoretically, a turret ship could throw shells into Portsmouth from such a distance as would render the same ship secure against being injured by the fire of the forts; but when we come to such excessive distances as are here supposed, the element of uncertainty and inaccuracy of aim would enter so largely into the question, multiplied as these would be by the instability of the platform from which the enemy's guns must be fired, that the danger from such an attempt would in all probability be practically *nil*.

The author has preferred to embody in a note the modifications, to which the reasoning of the preceding chapter has been subjected by events, rather than to make any change in the text; because it is always profitable to know what may be said on both sides of a question.

## CHAPTER III.

## ON THE QUALIFICATIONS OF A GENERAL.

‘**T**O fight a successful battle on just principles will indeed entitle a commander to high praise for talent, and the qualities of his mind must be various and rare. The greatest exertion of the most valuable and even the most contradictory endowments is requisite. In the midst of havoc and confusion his view must be rapid, and his decision and execution instantaneous; calmness must be his when all around is turbulence and horror; and the greatest impetuosity must be united with the most consummate prudence. But a battle may be won by accident, without any exertion of those admirable qualities. Most battles are so won. There are very few great generals.’

The above are the words of one who, take him for all in all, was perhaps the greatest military writer of our own or of past times—the historian of the Peninsular War.

Great generals are heaven-born; but it would be a very foolish conclusion from this truth, that they may therefore dispense with the study of their profession. On the other hand, the most perfect theoretical knowledge of the art of war can never bestow those mental and physical qualities, the combination of which is indispensable in a military leader.

A scientific knowledge of his profession and an extensive acquaintance with the history of military operations, every

officer should possess. By means of these, a man of ordinary ability may make a respectable figure as a general of brigade or division. But however successful in the limited sphere, it would be very unsafe to predicate of any man, before he is tried, that he is equal to supreme command. It is not the number of troops that makes the difference between the position of a general of division and that of a general-in-chief, although doubtless the mere routine labours and difficulties of the latter increase with the numbers under his command. That which separates the functions of these two by an immense distance is expressed by the one word *responsibility*. The chief command of 10,000 men gives rise to infinitely greater mental labour and anxiety, than the command of a body of 50,000, which forms only part of a larger force. The general of a corps d'armée marches and fights in obedience to the orders of a higher authority; those orders fulfilled and his camp pitched, he may repose like one of his own soldiers, waiting only for further instructions from his chief; but the mind of the latter is never unstrung, and it is just at the time when others are reposing, that his thoughts are ordinarily the most anxious and occupied with the future.

Men who have been energetic and prompt in the inferior rank, and of whom great expectations have been raised, have, when elevated to supreme command, sometimes astonished those around them by a sudden display of timidity and vacillation. The most difficult task of a commander-in-chief is to form a decided resolution amid conflicting and nearly equally balanced circumstances; this resolution, too, must frequently be adopted on the instant, in the hurry and tumult of a battle, when everything around is calculated to agitate and distract the mind. The inferior nature finds the difficulty insur-



mountable; he hesitates; the consequences of failure are constantly present to his mind; the thought 'What will they say of me if I fail?' haunts him; and when at length he determines to act, the time may have gone past, his resolution may be no longer applicable to the altered circumstances of the case; or worse, it may be positively injurious.

To disregard what others will say or think; to adopt that plan which commends itself to the judgment as the best, after calm and careful consideration of the chances for and against success; to despise ignorant criticism, misrepresentation, and calumny; and to pursue a firm and even course, uninfluenced by the desire of praise or the fear of censure—these are the attributes of the few and great minds. The general who, fully appreciating his responsibility, seeing clearly, as in a glass, all the possible chances of failure and the evil consequences to himself and others which may result from it, yet determines to disregard them to undertake a hazardous operation, opposed perhaps to arbitrary military rules, for the attainment of some great object, manifests thereby the rarest and most valuable quality of a commander, and one which all truly great generals have possessed.

Napier censures Beresford for fighting at Albuera, at a time when defeat would have been disastrous to the general cause and when there was no sufficient object to gain from success, solely in deference to the impatient temper of his British troops, who had none of them taken part in any of Wellington's victories, and were, for that reason, burning to fight. The historian, however, concludes his censure with the following apology:—'It is certain that if he had retreated, a very violent and unjust clamour would have been raised against him; and this was so strongly and uncereemoniously represented to him by an

officer on his own staff, that he gave way. These are what may be termed the moral obstacles of war. Such men as Lord Wellington or Sir John Moore can stride over them, but to second-rate minds they are insuperable. Practice and study may make a good general, as far as the handling of troops and the designing of a campaign; but the ascendancy of spirit which leads the wise while it controls the insolence of folly, is a rare gift of nature.'

Alexander crossed the Dardanelles in the year 334 B. C. with 40,000 men; he passed the Granicus in the face of Memnon's army, employed all the following year in consolidating his conquests in Asia Minor, and in 332 B. C. marched against Darius, who was in position on the banks of the Issus with 600,000 men; he defeated that monarch, took Damascus, where were his principal treasures, and laid siege to Tyre, the conquest of which cost him nine months. He afterwards took Gaza, crossed the desert in seven days, and founded Alexandria. In 331 he re-crossed the desert, traversed Syria, crossed the Euphrates and Tigris, and a second time defeated Darius, who was at the head of a larger army than before, at Arbela. The fruit of this victory was the submission of Babylon. In the three succeeding years he extended his conquests to the Caspian Sea, penetrated into Scythia and defeated the Scythians; forced the passage of the Oxus and subdued the neighbouring tribes; in 327 he passed the Indus and Hydaspes, and defeated and took prisoner Porus in a pitched battle. His army refusing to follow him across the Ganges, he returned to Babylon, where he died in 324.

Of Alexander, Napoleon says: 'His warfare was methodical, it commands the highest admiration; none of his convoys were intercepted; his army, weakest at the outset of a campaign, always increased as he advanced. Alexander



merits all the renown which has been accorded to him during so many centuries; but what if he had been beaten at Issus, where the army of Darius was in position across his line of retreat, its left resting on the mountains, its right on the sea, with the pass of Cilicia behind the Macedonians! What if he had been beaten at Arbela, having the Tigris, the Euphrates, and the desert in his rear, without any fortresses, nine hundred leagues from Macedonia! What if he had been beaten by Porus, with the Indus in his rear!'

In the year 218 B.C. Hannibal marched from Spain to invade Italy, with 100,000 men. He crossed the Pyrenees, traversed Gaul, forced the passage of the Rhone, passed the Alps, and descended into Italy with an army reduced to 26,000 men, to encounter the whole might and prestige of the most warlike people of the world—the iron kingdom of prophecy—at their very doors. He threw himself into the heart of Italy, leaving no garrisons nor depôts in his rear, having cut asunder all communication with Spain and Carthage, beat the Romans in the great battles of the Trebbia, Thrasymene, and Cannæ, and maintained himself in Italy, entirely on the resources which he himself created, during sixteen years.

Hannibal's resolution to attempt the conquest of Italy with 26,000 men without any certain base of operations, manifests that confidence in himself, which—although when ill founded it is presumptuous folly—when well founded, is the highest proof of inspiration, and without which in war nothing great can be achieved. This organisation of Cisalpine Gaul into a secure base of operations, and its fickle inhabitants into allies whose fidelity and devotion to him never swerved, presents that wonderful combination of personal fascination and knowledge of human nature which enabled him to influence his fellow-men in so remarkable a degree,

and which, when joined to his complete mastery over all the mere physical agents in war, rendered him irresistible. The Trebbia, Cannæ, and Thrasymene were brilliant victories; but it is not by their light that the genius of this great man is most clearly revealed. The generals there opposed to him, though brave soldiers, and in other respects able men, were ignorant of the art of war. But, after Cannæ, the Romans adopted a system of operations which was in general as skilfully executed as wisely conceived. Fabius, Marcellus, Fulvius, Gracchus, Nero, all great men and good generals, surrounded him with their armies, harassed his outposts, cut off his supplies, and dogged him in his marches; yet were never able to prevent him from coming and going at his pleasure, and never once gained an important advantage over him personally. Even after the defeat and death of his brother Hasdrubal, his numerous enemies, like dogs baiting a bear, only barked and snapped without daring to encounter his hug; and when he at length quitted Italy, it was only in obedience to orders from Carthage, and his embarkation was unmolested.

Napoleon remarks of Hannibal's invasion of Italy, 'So vast, so bold a plan has never been executed among men; the enterprise of Alexander was far less hazardous, far more easy, and presented greater chances of success. But Hannibal's offensive warfare was methodical; the Cisalpine Gauls became for Hannibal Carthaginians. If he had left in his rear dépôts and garrisons, he would have weakened his army and endangered the success of his operations; he would have been vulnerable everywhere.'

Cæsar was called to his first command at the age of forty-one. With 90,000 men he defeated, first 300,000 Helvetians, afterwards Ariovistus with a like force, in very bloody battles, at the distances respectively of 210



and 270 miles from Vienna on the Rhone, which was the nearest Roman town. In the following year, 57 B.C., he subdued the Belgians. In 56, he marched across the whole breadth of France to Nantes on the Loire, and subjected Normandy; his nearest depôt being then at Toulouse, from which he was separated by 400 miles of country traversed by great rivers, mountains, and forests. In 55, he led his army across the Rhine into Holland, and defeated 400,000 barbarians near Zutphen; afterwards ascended the Rhine to Cologne, where he crossed that river; thence marched to Boulogne, and made a descent on England. In 54, he made a second expedition to England, returning to Gaul in the autumn. Later in the season, having learnt that his lieutenant, Sabinus, had been cut to pieces with fifteen cohorts near Treves, and that Quintus Cicero was besieged in his camp at Tongres, he marched hastily to the relief of the latter with 900 men, defeated Ambiorix and delivered Cicero. In 52, all Gaul rose in insurrection. Cæsar had ten legions in the midst of a hostile population; he laid siege to Clermont, and failed; all his magazines were captured, and he was in great danger. Instead of retreating into the Roman province, he formed a junction with Labienus and besieged Alesia, where a large army of the confederate Gauls were shut up. Before this place he constructed very extensive lines of circum- and contra-vallation. The Gauls levied a second immense army and marched against Cæsar, who was thus enclosed between the Gaulish army without and that within the town. For three whole days he resisted successfully the constant attacks of the enemy from both sides. Alesia fell, and all Gaul submitted to the Roman authority. During this great struggle the whole of Cæsar's army was in his camp, where he always kept provisions for a month; having no detachments, he was vulnerable in no quarter.

In his former campaigns, his communications were protected by his Gaulish allies, and one fortified place enclosed his hostages, magazines, and hospitals; but on this occasion hatred of the Roman yoke overbore his personal popularity, and his former allies were turned into enemies. In the civil wars Cæsar manifested equal audacity. He passed the Rubicon with one legion, and in three months drove Pompey from Italy. While ships were building to enable him to follow Pompey, who had the command of the sea, into Greece, he passed the Alps, the Pyrenees, traversed Catalonia with only 900 cavalry, arrived before Lerida, and in forty days received the submission of the legions which Afranius there commanded for Pompey; continued his course into Andalusia, which he pacified; returned to Rome, exercised the functions of dictator for ten days, and then left to take command of the twelve legions which Antony had collected at Brindisium. Want of vessels prevented his transporting more than 25,000 men across the Adriatic at one time. With this small force he held Pompey in check several months until Antony contrived to join him with the remainder of his army. Defeated by Pompey at Dyrrachium, his communication with Italy severed, his position seemed desperate. He carried the war into Thessaly by a sudden march of 150 miles, and decided the struggle with Pompey in his own favour on the plains of Pharsalia.

‘Cæsar’s principles,’ says Napoleon, ‘were the same as those of Alexander and Hannibal: to keep his forces united, not to be vulnerable in more places than absolutely necessary, to throw himself rapidly on important points; to employ largely moral means, viz., the reputation of his arms, the fear which he inspired, and politic measures calculated to preserve the attachment of his allies and the submission of his conquered provinces.’



Marlborough's famous march from the Netherlands to the Danube, in 1704, is a brilliant example of self-reliance and disregard of responsibility. Austria was imminently threatened by the combined armies of France and Bavaria; and it being certain that if Austria should be coerced into making peace, the entire confederacy against Louis XIV., which Marlborough had been chiefly instrumental in forming and the support of which may be said to have rested mainly on his shoulders, would be broken up, the English general resolved to transport his whole army from the Netherlands to the Danube, with the design of uniting with Prince Eugene on that river, and of defeating the Elector of Bavaria before the latter could be reinforced by the French army of Marshal Tallard, then upon the Rhine. But the execution of this great scheme demanded that friends and foes should be alike deceived. His enemies, if they divined his intention, could easily frustrate it; while it was certain he could never obtain the consent of the governments of England and Holland to so hazardous an undertaking. In this case as in many others, however, it was the extraordinary boldness of the measure which gave it the best chance of success. The plan, entrusted only to his own breast and to Prince Eugene, was accomplished by means of the most careful forethought and arrangement, and resulted immediately in the victory of Blenheim—ultimately in the contraction of the power of the French monarch within limits which were compatible with the peace of Europe. No similar instance occurs in history, of a mere general, answerable to his own sovereign and to his allies, taking on himself so vast a responsibility. Alexander and Napoleon, for the prosecution of their great projects, wielded absolute authority. Hannibal, though opposed by a faction at Carthage, was supreme in Italy. Cæsar was answerable only to his own

fortune, in which he manifested such sublime confidence. But what Marlborough did was in direct contravention of the authority under which he acted, and it was only in conquering their enemies that he conquered the approval of his employers. Napoleon, in his Memoirs, with a very unworthy and petty jealousy, studiously and affectedly excluded the name of Marlborough from the list of great captains whose exploits he considered models for imitation. He does, indeed, speak of the battles of Blenheim and Malplaquet, and of the siege of Lille, but in connection solely with Prince Eugene, to whom he gives the credit of these achievements. Whatever may have been the motive—whether a reflected hatred of Marlborough on account of the deeds of that other British general which sent him to fret away the remainder of his days at St. Helena, or because he unwillingly recognised in Marlborough his own equal in military capacity—the omission is one instance of that extreme littleness of soul in connection with grandeur of intellect, of which the French conqueror was the most remarkable known example.

Almost equal to that of Marlborough are the instances afforded by the Scinde campaign of General Sir Charles Napier, of disregard of responsibility and immovable self-reliance. No other example exists in history, ancient or modern, of a man being called for the first time in his life, *at the age of sixty-two*, to command an army in the field under circumstances of so much complication and difficulty. He was chosen by Lord Ellenborough to command the troops in Scinde during a crisis which gravely threatened British supremacy in the East. It was precisely at the time when, to re-establish our prestige which had been tarnished by the Cabul disaster, General Nott advanced from Candahar to join General Pollock at Cabul with orders afterwards to retire to India by the Khyber Pass,



while Colonel England with a part of Nott's force fell back into Scinde by the Bolan Pass. While the movements of the different columns were thus arranged by the Indian Government on the most absurd and vicious military principles, and the troops were scattered on divergent lines of retreat, hundreds of miles apart, the safety of our Eastern empire, and especially that of Colonel England's column which was retiring on Scinde, depended very much on the capacity of Sir C. Napier, both as politician and commander. Thrown suddenly in the midst of the, to him, altogether strange field of Indian intrigue, he yet unravelled all its threads with more than the skill and tact of the oldest Indian diplomatist; fortunate indeed that he could do so: for the warlike clans of the hills were gathering in overwhelming numbers for the destruction of his small force; a large Beloch army was already collected at Meanee, although the Ameers were making daily professions of submission; professions which were able to deceive completely Sir C. Napier's political attaché—a man of great Indian experience—so much so, that he incessantly and very earnestly endeavoured to dissuade the general from offensive measures, thereby throwing upon him a terrible responsibility which few men would have ventured to face. Sir C. Napier, however, standing alone in his perception of the danger, disregarded the responsibility, and 'out of the nettle danger,' plucked 'the flower safety,' by attacking and defeating a force fifteen times his strength! Again, in his remarkable campaign against the robber tribes of the Cutchee hills, he undertook and successfully accomplished a desert warfare—according to Napoleon, the most difficult of all warfares—of the most extraordinary character, not only in defiance of the general opinion that success was impossible, but with an army which was imbued with the same belief. Like Columbus in his great enter-



prise, the English general was almost literally the only man of his force who had any hope of the result. Knowing that military rules must be modified by actual circumstances, and that in dealing with barbarians success is often best insured by neglecting them, he succeeded in his arduous undertaking by acting in direct opposition to the leading rules of war. *Concentrate your own force, divide that of your enemy, and overwhelm him in detail*, is the great principle of military action. Napier, on the contrary, divided his own force, and compelled his enemies to concentrate, having tracked them through mountains which for defiles and hidden caves were like a rabbit-warren, until he drove them all — robbers, wives, and children — into the great mountain stronghold of Trukkee, where they surrendered. During this campaign which lasted fifty-four days, he had to overcome enormous difficulties in feeding his force, to repress the timid counsels of his own troops, and to circumvent the proverbial hill-craft of his mountaineer enemies, the duplicity of his guides, and the uncertain fidelity of his allies. But, with a master hand and a master spirit, he converted all these disadvantages to his own favour, thereby illustrating a passage in Plutarch's Life of Philopœmen, where he says that great man, 'adopting the Cretan customs, and using their artifices and sleights against themselves, soon proved that their devices were like the short-sighted schemes of children when opposed to the long reach of an experienced general.'

Confident in the resources of their own minds, and *inspired*, it may be, with a supreme confidence in their fortune, which yet would never lead them to adopt any plan that on the whole did not offer greater chances for the attainment of their objects than any other could do, the great men above referred to set at nought the rules of war whenever more was to be gained by neglecting

than by observing them; and they were justified by success. But woe to that general who, over-estimating his own powers, seeks to imitate the great masters in this particular! he will meet only with failure and disgrace.

It is indispensable to lay down certain rules; these are derived from an analysis of the deeds of the great masters of the art of war, and are intended for the guidance of ordinary men: but he who binds himself slavishly to these rules, fights in fetters; he is not a great man, and is not likely to accomplish anything great. The moral element largely exceeds the physical in its effect on warlike operations: to produce a certain effect on men's minds may be sometimes the sure road to victory; for it is the mind that operates to impel men to heroic or shameful actions, and this perhaps can sometimes only be accomplished by a glaring violation of physical rules. A great general, though he may undertake what to common minds may appear the height of rashness, will by his sagacity and forethought reduce to a minimum the risks of failure and its possible consequences. It is sometimes necessary to dare all and risk all; but it is unfortunate for a people and an army whose general has the courage to form such a resolution without those qualities which would enable him to carry it to a successful issue. And herein lies the difference between daring and rashness.

History is full of proofs that fortune smiles on a daring course. 'Out of this nettle *danger* will I pluck the flower *safety*,' must not unfrequently be the resolution of a military commander. When the danger of any situation is great, great energy and exceptional action are required to conquer it. In such a case, the most passive course which some would think safest, is in reality the most ruinous; and that which would by many be characterised as rashness, is generally the most prudent. The difference between



a great man and a fool is, that the last is rash because he sees no danger, while the first is daring because he sees all the danger clearly and his boldness is founded on calculation.

The daring man will calculate all chances to the minutest particular, and in case of failure will be full of resources. On the other hand, a man may be ignorant of war and unfit for the command of an army, and may yet entertain such a presumptuous belief in his own ability as will lead him to laugh at responsibility and to undertake the wildest enterprises, foreseeing no dangers, taking no precautions to avert or diminish the evil consequences of failure. Essentially rash, he will blunder ahead, his arrogance increased by a success; if unsuccessful, he is helpless. Such a man will assuredly bring defeat on himself, unless his soldiers save his credit, as British troops have often done, and even win for him honours and rewards, at the expense of a vast amount of useless slaughter.

On this point one of England's greatest soldiers, himself an example of merit unrequited during his life save by the general admiration of his countrymen—on this point the conqueror and regenerator of Scinde speaks with a terrible authority. 'The surest way to save bloodshed in war,' he said, 'is for a general to be master of his profession.' 'How else could I command with honour? how answer for the lives of those intrusted to my charge? An ignorant general is a murderer: all brave men confide in the knowledge he pretends to possess, and when the death-trial comes their generous blood flows in vain! Merciful God! how can an ignorant man charge himself with so much blood? I have studied war, long, earnestly, and deeply, yet tremble at my own deficiencies.'

It appears at first sight a deplorable fact that rewards for military success are indiscriminating. The general who succeeds by the exercise of skill, sagacity and forethought,

and the general who, in spite of ignorance and incapacity, succeeds through the prodigal bloodshedding of his troops like water . . . are equally recompensed.

And yet it is on the whole right and proper that success should form the test of merit in a general. It is expedient that the man who brings ruin on an army confided to him by engaging it in a hazardous operation—however great the object to be gained and however good abstractedly his dispositions may have been—should bear the penalty of failure. The general who violates military rules, no matter for what object, must consider that he is throwing a main at hazard: if he succeed—well! he gains a great prize; if he fail, he must expect neither sympathy nor generous treatment from his countrymen, be they what nation they may. If it were not so, men of mediocrity would be encouraged to undertake dangerous enterprises which they have neither the requisite mental nor moral qualities to terminate successfully. The great men whose names have been above cited, often violated arbitrary rules by placing themselves in situations which to men of less transcendent ability would have been ruin; but they measured correctly the capacity of their adversaries and their own, and that which in others would have been extreme rashness was in them only the fruits of the most deliberate and just calculation.

In 1808, the nearly impregnable pass of the Somosierra was defended by 12,000 Spaniards; the causeway was swept by batteries posted on the summits of the ascent which seemed to render an advance up the road an impossibility. Napoleon, who commanded the French in person, ordered the position to be assailed to the right and left of the causeway by infantry; but his troops could make no impression on the Spaniards, who were too strongly posted. ‘At that moment Napoleon rode into the mouth



of the pass, and attentively examined the scene before him: the infantry were making no progress, and a thick fog, mixed with smoke, hung upon the ascent; suddenly, as if by inspiration, he ordered the Polish cavalry of his guard to charge up the causeway and seize the Spanish battery. In an instant the foremost ranks of the first squadron were levelled with the earth by the fire of the great battery, and the remainder were thrown into confusion; but General Krazinski as suddenly rallied them, and, covered by the smoke and the morning vapour, led them sword in hand up the mountain. As these gallant horsemen passed, the Spanish infantry on each side fired and fled towards the summit of the causeway; and when the Poles, cutting down the gunners, took the battery, the whole army was in flight, abandoning arms, ammunition, and baggage.\* The historian remarks on this exploit, 'The charge itself, viewed as a simple military operation, was extravagantly rash; but taken as the result of Napoleon's sagacious estimate of the real value of Spanish troops, and his promptitude in seizing the advantage offered by the smoke and fog that clung to the side of the mountain, it was a most felicitous example of intuitive genius.'

As an example of Napoleon's habitual forethought, it may be cited that, when he was desirous of remaining at Moscow to the last possible moment, in the hope that proposals of peace by Russia would extricate him from his alarming position, he employed the mathematician Laplace to calculate, by his famous *theory of probabilities*, how long the army might safely remain at Moscow without being overtaken by the winter in its retreat. The philosopher ascertained that the chances were more than a hundred to one, calculated on the data of past seasons, that the

\* Napier.

extreme cold would not commence before the 25th November. The winter did actually set in on the 6th November and with more than usual severity, as if to mock man's counsel, to frustrate his best-considered plans, and to destroy the French army. Napoleon's careful calculation of chances is shown by this circumstance, though even his genius was powerless against the elements: but in truth his advance to Moscow was essentially rash, an unvarying flow of good fortune having disturbed the even balance of his mind, leading him in this case to trust more to fortune than he could justify to his own reason.

The difficulties of command are indeed so great as to call for indulgent construction of the actions of a general-in-chief. To fight a battle is the smallest task required of him: armies have at least thirty days' marching and camping to one of fighting; and his chief labour consists in assuring the feeding, clothing, and health of his troops—in keeping their arms in serviceable order, and in providing them with proper and abundant ammunition. The transport of the necessary supplies and baggage of an army, even in Europe, is an astounding labour; and in India, the encumbrances arising from the climate are so enormous as to render the successful prosecution of military operations almost a marvel.

The necessity of feeding his army, and the state of the roads, frequently dictate the line of conduct a general must follow; the best and most promising schemes are sometimes forbidden by them. An army must either depend on the resources of the district in which it is about to operate, or it must be supplied during a forward movement by means of convoys: but the state of the roads, or an inadequate transport, may render the last impossible; and in that case, if the country be exhausted, the general's plan must be altered or postponed. If an army contem-



plates a rapid offensive movement, then, although the roads be good, convoys cannot be expected to overtake the troops who must therefore depend on what can be carried with the divisions; and this consideration must limit the operation as to time, unless reliance can be placed on the richness of the country through which the army advances to furnish it with food. Hannibal in his march through Italy carried with him all the supplies necessary for his troops, as well as the accumulated plunder they gathered up in their progress. Cæsar always carried with him a month's provisions. Soult, during his advance to Oporto in 1809, owned only the ground covered by his camp, and carried with him even his sick and wounded. The state of the roads obliged him to leave all his heavy guns behind in Tuy, a small town on the Minho; which place with its garrison he left entirely to its own resources, trusting to obtain a success which would enable him to reopen communication with it afterwards. In November 1811, when he was watching Ciudad Rodrigo, Wellington was obliged, contrary to all military rules, to separate his divisions in presence of the enemy, and to spread his troops even as far as the Mondego and valley of the Tagus, on account of the impossibility of feeding them otherwise; but the bad state of the roads, and the swollen condition of the rivers which covered his front, in some measure protected him from a sudden forward movement of the French.

In the present American war, when the Confederate army, after having so long successfully imposed on McClellan by playing the game of 'brag,' evacuated Manasses, the latter attempted to follow them up, but found on making the trial that the state of the roads rendered a forward movement impossible with the encumbrances of his large army, and he was obliged to return to his lines in front of Washington.

Again, in the case where a general commands a force in alliance with another, acting against a common enemy, the difficulties of his command are increased by the alliance far above what they would be without it. It is well known how Wellington was hampered at every step by the jealousies and follies of the governments of the Peninsula, in whose cause he was fighting. The troubles of Marlborough from a similar source were at least as great. Kinglake has recently exposed those to which we were subjected by the French alliance in the Crimean war; and this is a disadvantage to which England must always be especially liable in continental warfare, where her land forces can form only a comparatively small contingent.

When all the difficulties of command are considered, of which only a few have been here cited, how presumptuous it should appear for men, sitting at home, to criticise and condemn the conduct of generals at a distance, in ignorance of the circumstances which are indispensable to the formation of a correct judgment, supposing the critics to possess the military knowledge which could alone qualify them to judge at all! There is no point in which the educated English public is in general so ignorant as in military matters. If a general be only successful, at whatever cost, he is a demi-god; every talent is imputed to him, and he is elevated by acclamation to the height of a great commander. Let him fail, on the other hand, no matter how great the vigour or resources he may have displayed—through some unforeseen accident which will sometimes mar the best-concerted plan—he immediately becomes the mark for insult and calumny, launched against him in entire ignorance of the difficulties he may have had to contend against.

Look at Sir John Moore! Well! his fame has been rescued by Napier, who says by the way in speaking of



another general, 'So many circumstances combine to sway the judgment of a general in the field, which do not afterwards appear of weight, that caution should always be the motto of those who censure the conduct of an unfortunate commander.'

Look at Sir Edward Pakenham! one of the finest soldiers who ever drew a sword, beloved by all, and with considerable military ability. To this day, people who should know better speak of his 'disgraceful repulse at New Orleans.' The 'Times' correspondent in America employed that term in his letter of October 31, 1861. And the 'Times' newspaper, in a leading article about the same period, classed Sir E. Pakenham with a Burgoyne and a Braddock. Whereas the fact is that Pakenham's plan of attack was perfectly well conceived, and was, notwithstanding the slaughterous repulse of our troops in front of the lines, to all intents and purposes successful at the very moment of his death; for the 85th Regiment, under Colonel Thornton, had successfully executed their part of the programme, and had captured a redoubt, being the key of the enemy's position, the possession of which by us, if maintained, would have rendered that position untenable; because the fire from that redoubt enfiladed the whole American line. This fact is established by testimony which cannot be impeached—the testimony of General Jackson himself, in his despatch written after the battle. To maintain the redoubt was not only possible, but easy; to do so, it was simply necessary to reinforce the 85th. That it was not maintained, was owing to the want of resolution and fear of responsibility of the officers on whom the command devolved when Pakenham was stricken down, who, although strongly urged by one of Pakenham's staff to support the 85th, withdrew that regiment—and thus that which should have been recorded in

our annals as a victory is written down a defeat. But disgraceful it certainly was not in any sense to the chivalrous commander who died there.

During the war in Spain, Wellington complained to the English ministers, 'that his generals, stout in action personally as the poorest soldiers, were commonly so overwhelmed with the fear of responsibility when left to themselves, that the slightest movement of the enemy deprived them of their judgment. But instead of expressing his surprise, he should rather have reflected on the cause of this weakness. Every British officer of rank knew that without powerful interest his future prospects and his reputation for past services would have withered together under the first blight of misfortune; that a selfish government would instantly offer him up a victim to a misjudging public and a ribald press, with whom success is the only criterion of merit. English generals are, and must be, prodigal of their blood to obtain a reputation; but they are necessarily timid in command, when a single failure, even without a fault, consigns them to an old age of shame and misery.'\*

After the battle of Vimiero, Wellesley was censured for not having destroyed the French army in detail, which on account of its scattered condition it was assumed would have been easy. In examining this opinion, Napier says, 'To beat an army in detail, a general must be perfectly acquainted with the country he is to act in, well informed of his adversaries' movements, and rapid in his own. Now, rapidity in war depends as much on the experience of the troops as the energy of the chief; but the English army was raw, the staff and commissariat mere novices, the artillery scantily and badly horsed, few baggage or draught animals were to be obtained in the country, and there were only 180 cavalry mounted. Such impediments are not to

\* Napier.

be removed in a moment, and therein lies the difference between theory and practice, between criticism and execution.'

Speaking of Turenne's campaigns, Napoleon says that his immense marches, his enterprise and his daring, struck France with astonishment, but that until they had been justified by success they were the objects of adverse criticism to very commonplace men.

Of all the qualities which go to make up the character of a military commander, none is more rare than that serene elevation of soul which enables him to look down upon the turmoil and horrors of a battle as from the calm height of an uninterested observer, and to estimate correctly the effect of the various changes and chances of the day on the general issue of the whole. Napoleon considered that 'the first quality of a general-in-chief is a cool judgment which attaches no more than its due importance to successive events. The sensations he receives successively or simultaneously during the day must be classed in his mind, so as to occupy only the just place due to each. There are men to whom, by reason of their physical and moral constitution, the event of the present moment always appears of paramount importance: however great the knowledge and the courage of such men may be, however excellent their other qualities, nature has not formed them for the command of armies and the direction of great military operations.'

In every engagement there arrives a supreme moment, which once let slip does not return, when every disposable man, horse, and gun must be brought to bear on the point where success will finally decide the issue of the battle. To judge of that moment and of that point correctly during an action, is the most difficult problem of the commander. An eager sanguine man will magnify a trifling

success into an important advantage which requires only to be improved to become a great victory, and perhaps engages all his disposable troops at a point where success would have little influence on the final issue: meanwhile, the really decisive struggle may be taking place elsewhere unrecognised by him, and his reserves, whose action there would be all-important, are not forthcoming. A great general, on the other hand, estimates justly the varying fortunes of the day along his extended line; he perceives by intuition the point which, if forced by the enemy or if gained by himself, must decide the battle; and he keeps his reserves in hand, calmly expecting the moment which will sooner or later present itself for their decisive employment.

The battle of Talavera affords a fine illustration in principle of the foregoing remarks. The French charged the centre of the British line with great resolution, but were repulsed by the Guards and the German Legion, and the brigade of Guards, in the excitement of success, quitted the line with inconsiderate ardour to follow the retreating enemy; whereupon the French supporting columns and cavalry advanced, the retreating battalions turned again, and the heavy French batteries smote the Guards both in front and flank. Thus overpowered, the latter retreated in their turn; the German Legion being hard pressed, fell into confusion; the British centre was absolutely broken, and defeat would have been certain but for Sir Arthur Wellesley's provident sagacity. Foreseeing what would be the issue of the rash advance of the Guards, he had immediately ordered down the 48th Regiment from the hill on the left, where the fighting was fierce. They could ill be spared from thence, but Sir Arthur knew that an advantage gained by the French on the left would be more easily remedied than one in the centre, which would have



been ruinous. At the same time with the 48th, he ordered up the light cavalry. These arrived at the decisive point not a moment too soon; checked the French, who were advancing triumphantly, and saved the day. But if Sir Arthur had waited for the issue of the rash charge of the Guards before he sent for the 48th, the aid of that regiment would have been too late to restore the battle in the centre.

Bearing on this point, Marshal Marmont tells the following anecdote of Napoleon at Lutzen:—‘Believing in the enemy’s retreat, the Emperor had set out for Leipsic with two corps d’armée, and had enjoined me to make a strong reconnaissance towards Pegau. Marching from Weippach where I had passed the night, I thought it prudent to make my movement by the right bank of the ravine, although the road was longer. I was unwilling to endanger my communication with the rest of the army, which owed its salvation to that circumstance. Arriving at Starsiedel, I formed my troops there precisely at the moment when the enemy, having surprised the 3rd corps, was about to surround and destroy it. I was able partly to cover and protect its right flank, while it formed in order of battle. The enemy attacked me instantly with an overwhelming force, while the 3rd corps was hard pressed at Kaya, where Napoleon had now arrived. As the forces opposed to me constantly increased, I sent to him to ask for reinforcements; he sent me word that the battle was at Kaya, not at Starsiedel, and he was right. I had prevented the battle from being lost at the commencement, but it was at Kaya that it was gained.’

The same writer blames Napoleon for refusing to launch his guard into the fight at the battle of Borodino, at two o’clock in the day, when the Russians were in confusion, and when its employment would have been productive of immense results; and adds, that an hour’s respite at that

time saved the Russian army. In the same way, he says, Napoleon brought forward the Guard too late in the day at Waterloo. 'If it had advanced while the cavalry was performing such prodigies, the English infantry would probably have been overthrown, and the French army, disembarrassed of its most dangerous enemies, would have been able to make short work of the Prussians when they appeared on the scene.'

From the foregoing pages it is easily seen that war is no exact science, in which the result is a natural and necessary consequence of certain antecedents. In the military art the conditions are as variable as the state of the atmosphere, and no mind, however great, can embrace the infinite number of combinations which may arise to disarrange the most apparently promising plan. 'Who shall say with certainty what termination any war will ever have? Who shall prophesy of an art always varying, and of such intricacy that its secrets seem beyond the reach of human intellect? What vast preparations, what astonishing combinations were involved in the plan—what vigour and ability displayed in the execution—of Napoleon's march to Moscow! and yet when the winter came only a few days sooner than he expected, the giant's scheme seemed a thing for children to laugh at!

'When Sylla, after all his victories, styled himself a happy rather than a great general, he discovered his profound knowledge of the military art. Experience taught him that the speed of one legion, the inactivity of another—the obstinacy, the ignorance, or the treachery of a subordinate officer, was sufficient to mar the best-concerted plan; that the intervention of a shower of rain, an unexpected ditch, or any apparently trivial accident, might determine the fate of a whole army. It taught him that the vicissitudes of war are so many, disappointment will

attend the wisest combinations; that a ruinous defeat, the work of chance, sometimes closes the career of the boldest and most sagacious of generals; and that to judge of a commander by the event alone, is equally unjust and unphilosophical, a refuge of vanity and ignorance.' \*

A general can do no more than act so as to have the probabilities of success greatly in his favour, calculated on a dispassionate consideration of the aggregate of chances, physical and moral, for and against the plan he proposes to adopt. Napoleon said at St. Helena that he never had fought a battle without having on his side eighty chances out of a hundred. Yet when a general has done all he can do, all that the highest mounted genius can dictate, to insure, or rather it should be said to deserve, success, the result must still depend very much on fortune, that name by which the unknown combinations of Infinite Power are known among men.

'And though thou thinkest that thou knowest sure  
Thy victory, yet thou canst not surely know.  
For we are all like swimmers in the sea,  
Poised on the crest of a huge wave of fate,  
That hangs uncertain on which side to fall;  
And whether it will heave us up to land,  
Or whether it will roll us out to sea,  
Back out to sea to the deep waves of death,  
We know not, and no search will make us know;  
Only the event will teach us in its hour.' †

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\* Napier.

† Matthew Arnold.



## CHAPTER IV.

## ON THE EFFECT OF STRATAGEMS AND MORAL AGENTS IN WAR.

SUCCESS in war is obtained more by the effect produced on men's minds than by that on their bodies. It is the mysterious impalpable essence we call the mind which operates to impel men to actions, heroic or shameful, according to the impression temporarily communicated to it. It is true that there are minds of a high order, fixed and commanding, which under the same given conditions may be trusted always to impel the possessor to the same course of action. But the great mass of mankind are susceptible of receiving impressions from surrounding circumstances, or of catching a certain, as it were, magnetic influence from more commanding natures, which may determine them to very opposite modes of action under identical circumstances, according to the nature of the impression produced. The same man who would cheerfully march up to a cannon's mouth when in the hot fit of enthusiasm or emulation, or when the desire of praise or fear of shame is excited by the presence of spectators, might behave like the veriest poltroon in the cold fit that follows, or if darkness shrouded his actions from the eyes of his fellow-creatures. This is what Napoleon alluded to when he said that in war moral force is to physical force as four to one. If a man in a contest with another believes himself to be inferior, though in all material points he may have the



advantage, he is already beaten. Where an army in contest with another has met several successive defeats, there is a tendency to look upon defeat as the natural result of engaging in a battle with their successful enemy; the army becomes what is called demoralised. The principal element of success in war is a correct knowledge of all the circumstances which can affect your own condition and that of your enemy; and one of the most effective engines of warfare is to impose a false belief on an adversary as to your position, resources, or intentions. Whatever belief a general succeeds in imposing on an enemy in these particulars, the belief is as real and as powerful in its effect on the mind of that enemy, as if the image presented to it were a reality. If you make your enemy believe you are stronger than he, while in reality you are weaker, that belief will influence him to act in the same manner as he would do if you were really the stronger. You are for the time being to all intents and purposes what your enemy believes you to be, so far as affects the success of your plans. Accordingly, it will be found that all great generals have employed largely this element of victory—the *dolus* or stratagem—for the purpose of making their enemy believe what they wished him to believe; and consequently, as actions are regulated by belief, of making him act as they wished him to act. There is no operation in which a great advantage may not be gained by imposing a false belief on an enemy.

The panic which sometimes seizes a great mass of men when opposed to a comparative handful, is a strong exemplification. Fear generally is the result of an over-active imagination, which represents a danger about to be incurred in all the vividness of reality, and with every conceivable consequence. Courage and presence of mind, on the other hand, are the products of that command over the imagination

which chains it down to the event of the actual moment. In the case of such a panic as above supposed, the numbers composing the mass are greatly superior in physical force; but a belief seizes them, an image of exaggerated danger to each personal unit is suddenly presented to their imagination, which besides magnifies any peril, the precise amount of which is not apparent, beyond all measure of reality; this phantom of the brain dominates their reason and every faculty save fear; and fear, it is well known, acts on the legs of the human machine and produces that phenomenon vulgarly called *running away*.

The passage of a great river, or of any long line of defence, natural or artificial, in the face of an enemy, is the operation of all others in which stratagem is most applicable, and has been most commonly resorted to. Of the passage of rivers by such means, that of the Hydaspes by Alexander, of the Rhone by Hannibal, of the Po by Napoleon, of the Adour by Wellington, are fine examples. Wellington's passage of the Douro, though not coming rigidly under the denomination of a stratagem, was yet of the same nature in principle, since it was only accomplished by concealing his intentions from the French commander until his troops had actually effected a lodgment on the farther bank of the river.\*

Indeed, all measures for keeping an enemy in ignorance of intended movements may be considered as coming within the scope of this subject, as well as those moral means which the greatest generals have always largely employed to raise the spirit and courage of their soldiers, who, says Napoleon, are strong and victorious, or feeble and vanquished, according as they believe themselves to be either.

\* All the examples of *the passages of rivers* here referred to will be found in a chapter specially devoted to that subject.

Among modern commanders, Marlborough and Napoleon were those who the most systematically employed stratagem as an engine of warfare, and in which they displayed a degree of finesse and subtlety that never failed to deceive their opponents. They both carried the art of dissimulation to the highest perfection, and knowing well how useless would be the attempt to conceal from an enemy intentions which were known to their own troops, they were as careful to keep the latter in ignorance as the former.

Marlborough's famous march from the Netherlands to the Danube, in 1704, already cited, would, without any other instance, demonstrate the extraordinary subtlety with which he could lay his plans. But he has left many other examples, of which the most remarkable were the passage of the French lines of the Mehaigne, in 1705, and his still more famous passage of the lines of Bouchain, in 1711.

The lines of the Mehaigne were very strong, defended by 70,000 French troops under Villeroy, in positions whence they could readily concentrate at any threatened point. Marlborough effected his purpose in the following manner. He ordered General Overkirk to make a feigned attack on the extreme French right, to approach which it was necessary first to pass the Mehaigne river. The army then made an ostentatious movement to its own left, as if to support Overkirk, in order to confirm the enemy in the belief that his right was the point selected for attack. This produced the desired effect, and Villeroy drew the greater part of his force towards the threatened point. Overkirk having crossed the Mehaigne, advanced towards the lines, and sent detachments to the very brink of the ditch. While he was thus engaged, twelve pontoon bridges were thrown over the Mehaigne river in his rear, so that his troops should not be delayed a moment by the river when the proper



time should come to retrace their steps. After nightfall, Overkirk countermarched, recrossed the Mehaigne, and became the rear guard to the main army, which was by that time in movement towards its right; the English general having selected for his real attempt a distant part of the lines, which, from its being the very strongest of the whole, he judged the enemy would not guard so strongly as the other weaker parts. Keeping his intention secret from all except the commanders of his advanced and rear guards, his troops were completely ignorant of the service on which they were to be employed even at the time of their march, for which orders had only been issued a few hours beforehand; and as the collection of fascines for filling up the ditch would have disclosed the object of the movement, each trooper of the advanced guard had been ordered to provide himself with a truss of hay as a substitute, as if a rapid reconnaissance by that body only was intended. As he anticipated, Marlborough, after marching all night, found on his arrival at the point chosen, that it was almost destitute of defenders; his whole army was in position a few hours later within the enemy's lines, and the French army beat a hurried retreat behind the Dyle, abandoning all the works it had cost so much labour to construct.

The passage of the lines of Bouchain was a more remarkable operation. These, extending from the sea-coast of Picardy to Namur on the Meuse, had been constructed at enormous expense by command of Louis XIV. to cover the northern frontier of France. They were defended by a French army of 100,000 men, under Marshal Villars, who felt so much confidence in their strength, that he informed his master that these intrenchments were the *ne plus ultra* of the English general. Marlborough's plan was to force the passage at Arleux, which was an



advanced post on the French right, of considerable importance to the defence of that portion of the lines in its neighbourhood. Marlborough first took Arleux, which he strengthened and enlarged as if with the design of holding it. He then carried his whole army to the other extremity of the lines, leaving Arleux to its fate with a very insufficient garrison. He calculated that Villars would retake Arleux, and that finding it, on account of its increased extent, to require a larger garrison than he could prudently spare from the defence of that portion of the lines on which Marlborough was now seemingly meditating an attack, the French marshal would then demolish a post which his adversary appeared to value. As Marlborough anticipated, Arleux was taken and its defences destroyed, and thus the most serious obstacle to the success of his meditated attack in that neighbourhood was removed. The English general now pretended the deepest mortification. He shut himself up in his tent, with exquisite dissimulation changed his usually courteous demeanour and became morose, and declared loudly to all who approached him that he would wipe out the disgrace of the loss of Arleux by attacking the intrenchments in his front at all hazards. This was communicated to Villars by his spies; and to confirm him in his error, Marlborough, attended by his generals, made an elaborate reconnaissance of the French position in full view of their army. He rode along the front within cannon-shot, and stopping occasionally, and pointing to different parts of the intrenchments, he carefully explained to his subordinates the direction their several columns should take in advancing to the attack, which was then ordered to take place at dusk the same evening. Having thus completely deceived both friends and foes, and prevented the possibility of his real plan being communicated to Villars by confiding it to no one, the

troops were formed as if for the assault at nightfall, and while some cavalry were actually sent forward on the right to disquiet the enemy by a pretended attack, the army was moved off suddenly to its left, and marching all night, the leading troops at eleven o'clock next forenoon passed the lines unopposed near the then ruined fort of Arleux; a few hours later the whole army occupied a strong position within those defences, and Villars, who had not penetrated Marlborough's design until the latter had made good a start of many hours, only arrived to find his enemy's position unassailable, and himself compelled to abandon the barrier whose strength he had too hastily vaunted.

Again, at Ramillies, Marlborough employed a very simple trick to induce his adversary to weaken that part of the position which he intended to attack. Intending to assail the French right, he made a feigned attack on their left in this wise:—The French left was separated from the English right by a marshy stream difficult to cross. Marlborough's right wing was posted on high ground that sloped both ways; that is to say, down to the marshy stream in front as well as to the rear of the line. The infantry of that wing, in two lines supported by cavalry, marched down the slope to the brink of the stream with all the appearance of intending to cross. Alarmed by this demonstration for the safety of his left, the French general drew a large body of infantry from his right to reinforce the wing he conceived to be in danger. Marlborough waited until this movement was nearly completed, and then ordered his right wing to retire to the elevation which it had quitted. The first line he halted on the crest to show front to the enemy; but he carried the second line over the height and down the reverse slope, and then at once moved it rapidly to his left, the movement being

concealed by the heights in front from the observation of the enemy. He thus strengthened the force with which he was about to make his attack at the same time that he induced the French commander to weaken the point of his line which had been chosen for that attack, and the victory was principally due to that circumstance.

It was the system of Napoleon to deceive, not only the world at large, but even his own troops, as to the strength of his armies. Levies of men were decreed in the 'Moniteur' which were seldom more than partially raised. In Egypt the real quantities of provisions and clothing issued to the troops were always increased in general orders by one-third, to give his soldiers confidence in their supposed numbers; and he practised the same artifice in his early Italian campaigns. It is well known that he employed the press of Paris to publish only those accounts of his military operations which he desired the French public to believe. This system, however, has its disadvantages: it may be strength in the beginning, but it is assuredly weakness in the end. Its effect is to destroy all confidence, to exaggerate every reverse, and to increase every panic. But Napoleon was a mere amateur in this science compared with the Government of the United States of America, which is now reaping the fruit of a public mendacity unequalled in the history of the world; the Northern people having reached that pitch of distrust in their governors, that the official report of a victory creates nearly as much consternation as that of a defeat.\* Such a practice is very foreign to the genius and character of the English people. If any reverse has happened, the reading public learns it with a vengeance from the newspapers, which cannot certainly be accused of glossing over a

\* It is only fair to say that since this was written the Northern bulletins have become more trustworthy.



failure, or of extenuating the real or supposed faults which led to it. Finesse is not the strong part of the English character, nor is it desirable that it should be; but this element of success in war is too much neglected by English generals, who for the most part prefer to act in a downright straightforward sort of way that leaves no room for misconception on the part of an enemy, and which in war generally illustrates the reverse of the great ethical maxim, that 'honesty is the best policy.'

Napoleon's early campaigns, in particular, are full of examples of the subtlety and pains he employed to deceive his opponents.

In 1796, he laid his plans to pierce the centre of the enemy's strategical front, which may be considered to have extended from Ceva on the right, to the crest of the Apennines almost due north of Genoa on the left. To induce the Austrian commander, Beaulieu, to believe that it was his left, and not his centre, against which the French attack was to be directed, and to induce him to strengthen the former at the expense of the latter, Napoleon demanded of the Genoese Senate a free passage for his army through their city, as well as that the keys of Gavi, a Genoese fortress, should be given up to him; and he enforced those demands by pushing a French brigade to Voltri, only a few miles from Genoa. These circumstances being communicated to Beaulieu, as Napoleon intended they should be, led the Austrian to believe that the French army would pass through Genoa to attack the Austrian left by marching through the Bochetta Pass on Gavi. Beaulieu accordingly drew a large part of his force from the centre to reinforce his left, which he incautiously advanced to Genoa, thereby separating it hopelessly from the centre. Napoleon waited until this false movement was nearly completed, and then concentrated his whole force, which



was at that time interposed between the Austrian left and centre, against the latter portion of their army, beat it at Montenotte, separated the Austrians from the Sardinians who formed Beaulieu's right wing, threw the allies so separated on eccentric lines of retreat, followed up the Sardinians in force while he simply observed the Austrians, and compelled the former to conclude a separate armistice, which was afterwards ratified as the Treaty of Cherasco.

Disembarrassed of the Sardinians, Napoleon's next object was Lombardy and Milan, which were covered by the river Po, behind which Beaulieu had retreated. To prepare the way for his meditated passage of the Po, Napoleon caused to be inserted in the Treaty of Cherasco a stipulation that the French army should have the right to pass that river at Valenza. But Piacenza was the real place of passage fixed on in his own mind, and his only object in making such a stipulation was to deceive Beaulieu, to whom he knew the terms of the treaty would be at once communicated, and to turn that general's attention away from Piacenza by fixing it on Valenza. Having laid this train in the mind of his opponent, Napoleon confirmed him in his error by assembling the whole French army in the neighbourhood of Valenza. Waiting then until the Austrians conformed to this movement by concentrating in his front, he suddenly and rapidly marched by his right to Piacenza, where he crossed unopposed before the enemy suspected his intention; the result of which operation was the battle of the Bridge of Lodi and the conquest of Lombardy.

Again, at Arcola, in the same year, Napoleon finally obliged the Austrians to retreat, after three days' fighting, by the rather stale trick of sending a few horsemen by a long détour to show themselves suddenly in rear of the Austrian left flank with a great blowing of trumpets.

In the brilliant campaign of 1800, we again find Napoleon paving the way for success by one of the most masterly instances of finesse ever recorded. The French army in Italy was at the time hard pressed, and the formation of a new army, to be called the Army of Reserve, was decreed, which was to be commanded by the First Consul in person. His plan was to employ it in descending into Italy over the Great St. Bernard, so as to cut the communications of the Austrian army, which had advanced to Turin. But for the successful execution of this scheme, the utmost secrecy, celerity, and boldness were required. The difficult problem was, how to conceal from the numerous spies of England and Austria the assembly and movement of such a force. Napoleon judged that the best way to effect his object was to divulge its existence with such ostentation as should excite the ridicule of his enemies when collated with apparent facts, so that they might be led to consider the pompous announcement of its strength as a mere attempt to create a diversion in favour of Massena's army, which was blockaded and starving in Genoa. To direct the attention of the spies to a definite point, Dijon was named as the rendezvous of the army of reserve; and those useful gentry immediately flocked to that place, where they witnessed a pompous review of about 8,000 half-armed and badly-clothed conscripts and invalids in the first week in May. All Europe immediately rang with ridicule of 'Buonaparte's army of reserve.' But Napoleon's invention did not stop here; for at the same time that he announced the formation of that army with a great flourish of trumpets, he caused numerous handbills to be printed and circulated, in which, interspersed with many scandalous anecdotes of the First Consul and his Court, many pretended proofs were adduced that the army of reserve could not possibly



have a real existence. Meanwhile, the divisions of the real army were secretly assembled at different points along his intended route. Its advanced guard was reviewed by him at Lausanne on the 13th May; and the whole force was in full march on Italy at the very moment when the Austrians before Genoa were saying that Napoleon calculated too much on their gullibility in hoping that the bugbear of an army composed of 8,000 invalids and conscripts would induce them to relax their hold on Genoa. The result is well known: the army of reserve fell like a thunderbolt in the plains of Italy, and the campaign of Marengo was its splendid achievement.

Early in the campaign of 1809, it was of importance to Sir Arthur Wellesley that the bridge of Alcantara over the Tagus, although it might be useful for his own operations, should be destroyed rather than the French army under Victor should find passage there. Colonel Mayne, of the Engineers, was accordingly posted at that place with orders to destroy the bridge if the French should attempt to seize it. A month later, the relative circumstances of the two armies being changed, it became Victor's object to destroy the bridge; Wellesley's, to preserve it. Colonel Mayne was still employed to watch the bridge; but unfortunately his former orders to blow it up on the approach of the enemy had not been rescinded. Victor becoming acquainted with those orders, sent a detachment to make a demonstration against the bridge, with no other object than to induce Mayne to destroy it, which the latter accordingly did.

The following method of forcing the passage of a bridge is a fine example of daring and artifice combined. During Soult's operations on the Douro in 1809, one of his columns was stopped at the bridge of Amarante over the Tamega river, which was mined, and barred with three rows

of palisades, and the roadway of which was commanded by a battery of ten guns. A Portuguese force was in position on the heights beyond, which immediately overlooked the river, with an advanced guard posted at the end of the bridge. Several unsuccessful attempts had been made by the French to force a passage, but at length the following plan was devised by the engineer Brochard.

‘The Portuguese mine was so constructed, that while the muzzle of a loaded musket was in the chamber, a string tied to the trigger passed over the trench and parapet behind, and thus insured precision in the explosion. Brochard learning this, proceeded in the following manner:—On the night fixed for the execution of his plan, the French troops were disposed as near the head of the bridge as the necessity of concealment would allow. At eight o’clock, the moon shining bright, twenty men were sent a little below the bridge to open an oblique fire against the intrenchments. When the attention of the Portuguese was thus attracted to that side, a sapper crawled out, dressed in dark grey, pushing with his head a barrel of powder likewise enveloped in grey cloth to deaden the sound, along that side of the bridge which was darkened by the shadow of the parapet. He reached the intrenchment which covered the Portuguese mine undiscovered, placed his barrel against it, and retired. Two other sappers in succession performed the same feat and crept back safely; but a fourth, after placing his barrel, rose to run back, and was immediately shot at and wounded. The Portuguese fire was then directed on the bridge itself; but, as the barrels were not discovered, it soon ceased, and a fifth sapper, advancing like the others, attached a saucisson seventy yards long to the barrels. At two o’clock in the morning the whole was completed: the French kept very quiet, and the Portuguese remained tranquil and unsus-



picious. Brochard had calculated that the four barrels exploding together would destroy the Portuguese intrenchment, and burn the cord which was attached to their mine. The event proved he was right; for a thick fog arising about three in the morning, the saucisson was fired, and the explosion made a large breach. The engineer with the sappers instantly jumped on the bridge, threw water into the mine, cut away all obstacles, and being followed by a column of grenadiers, won the passage before the smoke cleared away. The execution of this bold and ingenious project cost only seven or eight men killed; while in the former futile attempts a hundred and eighty men, besides many artillery and engineer officers, had fallen. It is, however, a singular fact, that there was a practicable ford near the bridge, unguarded and apparently unknown to both sides! \* \*

Among the agents a general may employ to deceive an adversary, despatches and spies are especially effective.

Where it may be necessary to arrange any operation in concert with an ally or a subordinate at a distance by the agency of messengers, who might possibly fall into the enemy's hands, a general should not be satisfied with sending one messenger only, or even two. Where the object is important, several officers should be employed and despatched on successive days, each with a false despatch but all carefully agreeing, detailing a false plan to mislead, while the true plan is confided to the memory of the messenger alone. But this requires that the messengers employed should be men of ready wit and intelligence.

When Hannibal was in the south of Italy, his brother Hasdrubal arrived on the Po with an army to reinforce him; but there were two serious obstacles in the way of

\* Napier.

their effecting a junction. *First*, several Roman armies and several hundred miles interposed between them; *second*, it was impossible to concert any plan of operations, for Hannibal was entirely ignorant of the arrival of his brother in the north of Italy, and Hasdrubal was of course ignorant of Hannibal's actual position and circumstances. To endeavour to open a communication, Hasdrubal sent off six horsemen to make their way to his brother, with the tidings that he was marching by Ariminum, and with a proposal that Hannibal should join him in the plains of Umbria. The above communication was embodied in a despatch written, not in cipher, but in common Carthaginian; so that when these horsemen were taken, the despatch, containing all particulars of the proposed plan of operations, was easily translated for the information of the Roman commander, Claudius Nero, who made use of the knowledge thus acquired to march instantly against Hasdrubal, whom he defeated and slew at the Metaurus. If, instead of sending off the six horsemen in a body, Hasdrubal had despatched a messenger on every successive day until he should have received word that one of his emissaries had reached Hannibal, the latter would have received the information he required to enable him to act; and if each messenger had borne an identical despatch containing a false plan, while the real one had been confided to his memory only, the Romans would have been put on a false scent.

In Cooper's interesting novel, 'The Spy,' the hero of the tale is an American patriot during the revolutionary war, who was paid by the British, and believed to be a British spy by both parties; on account of which belief he was in constant peril and had many narrow escapes of being put to death by his own countrymen. The real fact was known to Washington and himself alone, and he was



thereby enabled to serve his country's cause more effectually than a hundred ordinary spies could have done. Such an instance, however, is only possible in a struggle for independence. In every other description of contest the motives which influence men to exercise the degraded calling of a spy are sordid; but in such a case as is supposed by Cooper it requires the highest and purest patriotism to induce a man to make almost the greatest sacrifice of which human nature is capable. During the Spanish struggle for independence, the Duke of Wellington derived great advantage from the employment as spies of patriotic Spaniards, some of them of high birth, who, like Cooper's hero, were in the pay of their country's enemies and were believed to be French spies by both parties.

But Wellington had other agents for procuring intelligence, no less effective; and these were English officers—men of iron nerve, and ready wit, daring and expert in the saddle, who, dressed in their proper uniform, sought and obtained the most valuable information with regard to the position, resources, and probable intentions of the enemy, in the very midst of the French army. The most prominent of these officers were Colonel Waters and Captain Colquhoun Grant, concerning whom the following anecdotes are given as illustrating their peculiar qualities.

Waters was taken prisoner by the French in Massena's retreat, and as, confiding in his own resources, he refused his parole, he was placed under the special guard of four gendarmes. When near Salamanca, the chief, who rode the only good horse of the party, alighted for a moment; whereupon Waters gave the spur to his own mare, a celebrated animal, and galloped off! It was an act of incredible resolution and hardihood; for he was on a wide plain, and before him and for miles behind him the road was covered with the French columns. His hat fell off,

and thus marked he rode along the flank of the troops, some encouraging him, others firing at him, the gendarmes being always, sword in hand, close at his heels. Suddenly he broke at full speed between two of the columns, gained a wooded hollow, and having thus baffled his pursuers, evaded the rear of the enemy's army and the third day reached head-quarters, where Lord Wellington had caused his baggage to be brought, observing that he would not be long absent.

When the French army was concentrating on the Tormes, in 1812, Captain Colquhoun Grant was sent by Wellington to watch Marmont's proceedings. 'Attended by Leon, a Spanish peasant of great fidelity and quickness of apprehension, who had been his companion on many former occasions of the same nature, Grant arrived in the Salamancan district, and passing the Tormes in the night remained in uniform—for he never assumed any disguise—three days in the midst of the French camp. He thus obtained exact information of Marmont's object, and more especially of his preparation of provisions and scaling-ladders, notes of which he sent to Lord Wellington from day to day by Spanish agents. However, on the third night some peasants brought him a general order addressed to the French regiments, and saying that the notorious Grant being within the circle of their cantonments, the soldiers were to use their utmost exertions to secure him, for which purpose also guards were placed, as it were, in a circle round the army. Nothing daunted by this news, Grant consulted with the peasants, and the next morning before daylight entered the village of Huerta, which is close to a ford on the Tormes. Here there was a French battalion, and on the opposite side of the river cavalry videttes were posted, two of which constantly patrolled back and forward for the space of three hundred



yards, meeting always at the ford. When day broke the French battalion assembled at its alarm-post; and at that moment Grant was secretly brought with his horse behind the gable of a house which hid him from the infantry and was opposite to the ford. The peasants, standing on some loose stones, and spreading their large cloaks, covered him from the cavalry videttes, and thus he calmly waited until the latter were separated the full extent of their beat; then putting spurs to his horse, he dashed through the ford between them, and receiving their fire without damage reached a not very distant wood, where the pursuit was baffled, and where he was soon rejoined by Leon who in his native dress met with no interruption.

Grant had already ascertained that the means of storming Ciudad Rodrigo were prepared, and that the French officers openly talked of doing so; but he desired still further to test this project, and to discover if the march of the enemy might not finally be directed by the pass of Perales towards the Tagus: he wished also to ascertain more correctly their real numbers, and therefore placed himself on a wooded hill near Tamames, where the road branches off on the one hand to Perales, on the other to Ciudad Rodrigo. Here lying *perdu* until the whole French army had passed by in march, he noted every battalion and gun, and finding that all were directed towards Ciudad, entered Tamames after they had passed, and discovered that they had left the greater part of their scaling-ladders behind which clearly proved that their intention of storming Ciudad Rodrigo was not real. This it was which allayed Wellington's fears for that fortress.\*

In a later expedition, Grant was taken prisoner and sent to Paris whence he made his escape to the sea-coast, and after a series of remarkable and romantic adventures was

\* Napier.

put on board an English man-of-war by a poor fisherman.

The following clever ruse is related by Napier of a French dragoon:—During the retreat from Burgos Wellington halted on the Carion with the intention of disputing the line of that river. The French came down in force on the village of Muriel just as the bridge at that place was blown up by the British. ‘The explosion, which was effectual, checked the advance of the French for an instant; but suddenly a horseman, darting out at full speed from the column, rode down under a flight of bullets to the bridge calling out that he was a deserter: he reached the edge of the chasm made by the explosion, and then violently checking his foaming horse held up his hands exclaiming that he was a lost man, and with hurried accents asked if there was no ford near. The goodnatured soldiers pointed to one a little way off, and the gallant fellow having looked earnestly for a few moments as if to fix the exact spot, wheeled his horse round, kissed his hand in derision, and bending over his saddle-bow, dashed back to his own comrades amidst showers of shot and shouts of laughter from both sides. The next moment Maucune’s column, covered by a concentrated fire of guns, passed the river at the ford thus discovered.’

Everything connected with information and the means of obtaining it comes within the scope of the subject of this chapter; for the surest way to avoid being deceived by an enemy, is to acquire an accurate knowledge of his numbers, situation and resources, from which data a very shrewd guess may be made as to his real intentions. On the other hand, the same accuracy of information is necessary to enable you to play on the credulity of an adversary with success. Without, therefore, placing a blind confidence in spies, a general should employ them



and pay them well. One of the first objects should be to become minutely acquainted with the organisation of the different corps which compose an enemy's army. With the help of this knowledge, and by means of the prisoners taken by his light troops who are constantly engaged at the outposts, a general has very tolerable data for judging of the enemy's intentions. The capture of a soldier of such a regiment announces the presence of such a division, belonging to such a corps, under such a commander; and a knowledge of the commander will supply an additional and very important element in the determination of his probable mode of action.

The success of every stratagem depends mainly on a commander's knowledge of human nature in general, and of his adversary's character in particular. The whole history of Hannibal's career strongly exemplifies this, and the following instance is selected from his campaigns as a particular example.

The Roman generals Fabius and Minucius each commanded, independently of the other, one-half of the army which was opposed to Hannibal. The latter wished to bring on a battle, which it was the true policy of the Romans to avoid; and he knew that Fabius was both too wary and too skilful to be made to fight against his will: but Minucius was of an impetuous nature, and his natural overweening confidence in himself had lately received a strong accession from a recent partial success he had gained over the Carthaginians; and Hannibal judged correctly that the circumstance would dispose Minucius to fall all the more readily into the snare which he prepared for him in the following manner:—Between Minucius and himself was a hill, the possession of which might be advantageous to either party. This hill Hannibal designed to seize on ostentatiously, and by the weakness of

the force there posted, to tempt his adversary to attack it, hoping thus to draw the Romans by degrees into a general engagement and to defeat them by means of a previously-concerted ambush. The plain which surrounded the hill was level, and at first sight did not seem favourable to the concealment of troops, being destitute of wood and hedges. But Hannibal, in a careful examination of the ground, had observed several cavities or hollows, some of them capable of concealing several hundred men; and in this broken ground he posted during the night 5,000 infantry and 500 cavalry, whose position would enable them to take the Romans in flank and rear if the latter should be tempted to attack the hill in question. At daybreak on the morrow, Hannibal occupied the hill with his light troops; and Minucius immediately despatched a force of infantry, supported by cavalry, to endeavour to take the height. Hannibal continually reinforced his people by small bodies; and the fight was so obstinately maintained that at length Minucius, whose blood was up, marched towards the hill with his whole force in order of battle. Hannibal on his side advanced to meet him; the battle became fierce and general, and while at the hottest, he gave the preconcerted signal to his ambush which coming forth from its hiding-places charged the Romans in flank and rear. The destruction of the latter appeared certain, and the rout of the Trebbia would have been repeated had not Fabius, who had been encamped a mile and a half from Minucius, in his anxiety as to the result of his colleague's operations held his troops in readiness and led them up at this critical moment to protect the retreat of the broken legions of Minucius. Hannibal, content with his advantage and unwilling to commit his army against fresh troops, then withdrew to his camp.

The following anecdote of Napoleon illustrates the ad-



vantage of a confident bearing in a commander in circumstances apparently desperate:—In 1796, after the defeat and dispersion of the corps of Quasdanowitch, Napoleon was occupied at Lonato after nightfall in making his dispositions for the coming battle of Castiglione, when one of the columns of the defeated army numbering 5,000 men, which had been wandering in the mountains for two days having lost their way, arrived before that town. The French force there did not exceed a thousand; all egress was blocked by the enemy, and an Austrian officer, blindfolded, with a flag of truce, was admitted to the presence of the French general to demand the surrender of the place which was not defensible, and all that it contained. Napoleon summoned the whole of his staff around him, and ordered that as imposing an appearance as possible should be made by the few troops and guns at his disposal, and then ordering the bandage to be removed from the eyes of the Austrian, asked with a mixture of anger and dignity what motive could influence his chief thus to insult a victorious general with a summons to surrender. ‘Tell him,’ he continued, ‘that you have seen General Buonaparte, surrounded by his staff and his army; that I know the force he commands is only one of the columns cut off by my troops, who occupy Salo and the road of Brescia; that I give him eight minutes to lay down his arms; and that if a single cartridge is burnt I will cause him to be shot.’

The Austrian general, on learning to his great surprise that Napoleon’s head-quarters were in the town, proposed to surrender on conditions.

‘No,’ was the haughty reply of the latter, ‘I can make no conditions with men who are my prisoners;’ and as the other hesitated, Napoleon ordered a demonstration of attack. This produced the desired effect and the Austrians sur-

rendered at discretion with three flags and four pieces of cannon.

That eccentric warrior, the Russian general Suwaroff, acquired an extraordinary influence over the mind of his half-savage troops by means of his force of character, and of such singular expedients as the following :—

If one of his columns, thrown into disorder, turned to fly, he would gallop to head the fugitives ; and then throwing himself on the ground in their path, would cry, ‘ Let us see who will be so bold as to pass over his general’s body ;’ which, it is related, generally had the desired effect of making the runaways return to their duty.

In his famous passage of the St. Gothard, in 1799, his troops were so profoundly discouraged by the dangers and difficulties of the march, that they refused to proceed, threw away their arms, and absolutely mutinied. It was in vain that punishment was resorted to, and that the most mutinous had perished under the stick : it was impossible to persuade the men to advance. Suwaroff, seeing that exhortation and chastisement were alike useless, ordered a ditch to be dug across the road they ought to follow ; then taking off his clothes and extending himself in the ditch, he cried to those who were nearest, ‘ Cover me over with earth and leave me : you are no longer my children, I am no longer your father, all that remains for me is to die. When I sup with St. Nicholas to-night and he asks me why I am there, I shall tell him that the Russian grenadiers abandoned their general and left him on a foreign soil at the mercy of the enemy, and that he preferred to die rather than survive such dishonour.’ This comedy had a complete success : the grenadiers dragged their general out of the ditch, held him for some time in their arms, uttering wild cries, and entreated him to lead them at once against the enemy, swearing to



escalade the steepest summits of St. Gothard if necessary.

The advantage of the initiative in war is of two kinds—moral and physical. Morally, it produces an encouraging effect on his own troops and proportionally the reverse on those of the enemy, where a general has sufficient force of character to take the lead and to oblige his adversary to follow it. It is an indication of superiority which is real. The physical advantage consists in this—that a general who takes the initiative acts decidedly; all his measures are taken with respect to a definite object; while his adversary must first ascertain with certainty what that object is before he can take measures to oppose it. The employment of stratagem confers all the advantages of a real initiative on the general, who is able thereby to deceive his opponent and induce the latter to act as he would have him to act, notwithstanding that the initiative may apparently be with his opponent. For example, if a general, occupying a defensive position, be enabled, by inspiring a false belief in the mind of his adversary, to induce the latter to attack a certain part of the position which has been specially prepared with that view, and to which special case all the accompanying circumstances are most favourable for the defensive force—then the initiative in principle is with the defenders; as is the case also whenever you may be able to make an enemy act as you desire him to act.

In considering the application of stratagem to a field of battle, or in a tactical point of view, it is to be observed that its employment is more likely to be successful where the positions occupied by the contending armies are extensive, stretching beyond the reach of the eye at any one point. A weak man becomes nervous and agitated by the thought of what may possibly be taking place out of his actual



eyesight, and it is more easy to practise on his imagination in such a case, than where, the ground being open and the position contracted, every movement of both armies is clearly to be discerned. And although the favourable formation of the actual battle-ground may suggest to one or other commander the employment of stratagem as a means of victory, as in several cases cited in this chapter, it will be found that in general the application of such means to the tactics of a battle will be best introduced beforehand by strategical movements.

Since the foregoing pages were written, the account of Major-General Cameron's very successful operations against the rebel natives of Northern New Zealand has been received. By simple but ingenious contrivances, the natives were deceived into the belief that the British forces in their front were being withdrawn, while in reality they were reinforced, and the troops were placed in a position quite close to the stronghold they were to assail without being discovered. The consequence was that the rebel position of great strength was carried in a few moments, and out of the total force engaged, numbering more than 700 men, the only casualties were one killed, and ten wounded, of whom two are since dead: and although, in the usual exercise of public discrimination, the small amount of loss will probably deprive the affair of much of the credit and interest which would have attached to it if the engagement had been more bloody; it is that very absence of loss, in combination with complete success, which is the highest and rarest proof of skill in the general who planned and conducted the operation.

## CHAPTER V.

## ON THE STAFF OF AN ARMY AND MILITARY EDUCATION.

THE staff of an army is that element which permeates the mass and gives coherence to its several particles. Without a well-instructed and intelligent staff, the different divisions, however admirable in organisation and discipline as independent military units, would, when required to combine their action towards a common object, be found wanting in that unity of impulse which is indispensable to military success. Although, therefore, it is true that neither a division nor even a brigade can dispense with an experienced staff, the functions of this branch of the service become more important in proportion to the number of those units, whose movements on the march or on the battle-field it is their particular business, as the intelligent tools of the general-in-chief, to direct and combine. And not their movements only, but all the services which relate to the arming, clothing, feeding, and health of the troops, are likewise in an especial manner within the scope of their duties. These last items, moreover, necessitate an enormous transport, which comprises a supply of horses, mules, carts, waggons, ambulances, drivers, and nurses. It is true we have a well-organised military train which undertakes the transport duty, having its dépôts at home; but it will always be found necessary to supplement largely the resources of that branch

of the service from the country in which an army is operating. It is true also, that other departments—ordnance, commissariat, and medical—are specially charged with the supply of arms, clothing, food, and medical attendance. But the labours of all of these branches must be harmonised and dovetailed; and it would be an abdication of his functions if a general-in-chief were to abstain from generally supervising and directing the services in which they are employed, but for the correct performance of which he alone is responsible, just as much as if he abstained from interfering with the fighting divisions of his army. Each of the above-named departments is in fact a division, having its proper divisional staff; the only distinction being, that these are called non-combatants, although in reality they largely share in the dangers and hardships of a campaign.

The officers of the general staff are the tools with which the general-in-chief must work to give to the combined labour of all the different divisions of his force their maximum of effect. Tools, they are called here advisedly; for it is a not uncommon error to suppose that the functions of the staff may extend to the advising, and sometimes even the controlling, of the commander. And in the French army such is not unfrequently the case; but no English general would encourage or permit such an encroachment on his dignity. The commander is responsible for everything that takes place in his army; and he must therefore satisfy himself, by personal enquiry and inspection, that his troops do not suffer from any want of harmony or zeal in the different departments which are charged to administer to their health, comfort, and efficiency. When important movements are in progress, he must also assure himself personally so far as lies in his power that they are being properly executed



by the different fragments of his force. But as he cannot be in more than one place at a time, he necessarily employs agents on whom he believes he can thoroughly rely; and for the correct action of these agents even, he is responsible—and justly, because one of the most important qualifications of a general is that knowledge of character which enables him to select the most reliable agents.

The general-in-chief is then, *ex officio*, the head of the staff of his army. The functionary who is called the chief of the staff, is simply the medium through which he communicates with the different departments of the staff and of the army, while the subordinate staff officers are the channel for conveying the supreme will to the working fractions.

The above preliminary remarks will serve to indicate the variety of duties which a staff officer may be called on to perform, and will suggest also the qualifications which are essential to enable him to fulfil them worthily.

A rare combination of natural and acquired qualities is necessary to form a perfect staff officer, and the physical is little less important than the mental organisation.

Among the natural qualifications may be enumerated—tact, a conciliatory manner, sound judgment, rapid perception, good eyesight, activity, and physical endurance. To these may be added a readiness to assume responsibility in great emergencies, where such assumption would be advantageous to the service in which he is employed.

For his acquired qualifications, he should have an intimate acquaintance with the details of the service in its different branches—infantry, cavalry, artillery, and the several other departments of the army; a correct knowledge of military principles, and a mind well stored with the precedents supplied by past campaigns. His naturally quick eye should be educated to seize the relative importance

of the features and accidents of ground in a military sense, as well as to judge correctly of distances, and of the numbers of a body of troops seen from afar; he should be a rapid and accurate draftsman, and a bold and skilful rider.

Napier says that at Sabugal 'the petulance of a staff officer marred an admirable combination and produced a dangerous combat.' The mistake which occasioned the disastrous, however glorious, achievement of the light cavalry brigade at Balaklava has been charged to the same origin. The demeanour and language of the staff officers in both cases were in principle the same. At Sabugal, the question impatiently put by an officer riding hastily up to Colonel Beckwith, '*Why do you not attack?*' sent the latter with his brigade over a deep and rapid river and up a steep hill-side against 12,000 enemies supported by cavalry and artillery. At Balaklava, the outstretched hand of Nolan—who believed everything possible to cavalry—imperiously pointing to the Russian guns, and the words '*There is the enemy, and there are the guns,*' sent the light brigade like a whirlwind to charge an army in position.

The readiness to assume responsibility in great emergencies, although, when prompted by calm judgment and based on sound military reasons, it cannot be too highly commended, becomes in any other case rash and mischievous. The two instances which have been cited are examples of the last. Colonel (afterwards Lord) Hardinge's assumption of responsibility at Albuera, when he urged Cole to lead the Fourth Division up the 'fatal hill,' gained the battle for the allies, and is a fine example of the first.

Out of this incident an amicable controversy afterwards arose between Cole and Hardinge, as to their respective

shares in the merit of that successful movement. And at Lord Hardinge's death the historian of the Peninsular War fairly apportioned the degree of praise to which each was justly entitled. Cole knew at the time that the action urged upon him by Hardinge was on the latter's sole responsibility and did not come as an order from Beresford. He, in fact, followed rather the suggestions of a subordinate than the orders of a superior, albeit those suggestions were urged with exceeding earnestness and tenacity; and by adopting them, he completely removed all responsibility off Hardinge's shoulders to his own, although the merit of the suggestion, and of the strength of will which influenced the other, remain with Hardinge.

It must be borne in mind, however, that where a subordinate thus usurps the functions of a superior, he must be prepared to bear the whole penalty of any failure that may have been, or may appear to have been, incurred through his unauthorised orders, however well considered and judicious they may be in the abstract. And it is very fitting that such should be the case; as otherwise ignorance impelled by rashness would be at a premium, so long as youth is ardent and impetuous, and naturally antagonistic to any deliberate calculation of chances when its blood is up.

Napier gives a curious instance of a rash and ignorant assumption of responsibility on the retreat from Burgos which is worthy of being cited. On November 18, 1812, the army was to draw off before daylight from the position of the Huebra, which, although good for defence, was difficult to remove from at that season. The roads, hollow and narrow, led up a steep bank to a table-land; and from the overflowing of one of the gullies with which this was intersected, the principal road was impassable a mile in



rear of the position: hence, to bring the columns off in time, without jostling, and if possible without being attacked, required delicate management. 'Knowing that the most direct road was impassable, Wellington had directed the divisions by another road, longer and apparently more difficult: this seemed such an extraordinary proceeding to some general officers, that after consulting together they deemed their commander unfit to conduct the army, and led their troops by what appeared to them the fittest line of retreat. Meanwhile Wellington, who had before daylight placed himself at an important point on his own road, waited impatiently for the arrival of the leading division until dawn, and then suspecting something of what had happened, galloped to the other road, and found the would-be commanders stopped by that flood which his arrangements had been made to avoid. The insubordination and the danger to the whole army were alike glaring; yet the practical rebuke was so severe and well-timed, the humiliation was so complete and so deeply felt, that, with one proud sarcastic observation indicating contempt more than anger, he led back the troops and drew off all his forces safely. However, some confusion and great danger still attended the operation; for even on this road one water-gully was so deep that the Light Division, which covered the rear, could only pass it man by man over a felled tree. And it was fortunate that Soult, unable to feed his troops a day longer, stopped on the Huebra with his main body, and only sent on some cavalry.'

Another lesson on judgment, drawn from the same retreat, is furnished by the historian.

'Another notable thing was the discontent of the veteran troops with the arrangements of the staff officers. For the assembling of the sick men at the place and time prescribed to form the convoys was punctually attended to

by the regimental officers ; not so by the others, nor by the commissaries who had charge to provide the means of transport : hence delay and great suffering to the sick, and the wearing out of the healthy men's strength by waiting with their packs on for the negligent. And when the Light Division was left on the right bank of the Tormes to cover the passage at Alba, a prudent order, that all baggage or other impediments should pass rapidly over the narrow bridge at that place without halting at all on the enemy's side, was, by those charged with the execution, so rigorously interpreted as to deprive the Light Division of their ration-bullocks and flour-mules at the very moment of distribution ; and the tired soldiers, thus absurdly denied their food, had the further mortification to see a string of commissaries' carts deliberately passing their post many hours afterwards. All regimental officers know that the anger and discontent thus created is one of the surest means of ruining the discipline of an army, and it is in these particulars that the value of a good and experienced staff is found.'

The power of delineating ground rapidly and correctly in a military sense, adds greatly to the value of a staff officer ; but it is evident that he may be an able and accurate draftsman, yet that his sketch may prove injurious rather than an assistance to his general, if he is wanting in that knowledge of ground, based on military principles, which confers the chief value on a military plan. One man will mark upon his work carefully and very distinctly every accident such as broken ground, a low wall, a low hedge, a hollow way, which his military knowledge teaches him may be turned to account either in attack or defence ; while another, in his ignorance, may altogether omit such features, trifling in themselves, as small matters of detail unworthy of particular attention.

The following is a French view of the duties of staff officers :—

\* ‘Un chef d’état-major est, dans nos temps modernes, l’intermédiaire par lequel le général en chef communique avec l’armée, l’agent qui met tout en action ; chargé à la fois de veiller sur l’administration et sur les opérations militaires, il descend dans les plus petits détails, et s’associe aux plus hautes combinaisons. Son caractère doux sans faiblesse, conciliant avec dignité, doit accueillir toutes les demandes, peser tous les droits, encourager les timides, retenir dans les bornes ceux que trop d’ardeur en ferait sortir. Il doit effacer les préventions, calmer les irritabilités, et unissant des intérêts rivaux, ne former qu’une seule famille d’hommes qu’exaltent tant de passions, et qui, toujours sur les confins de la vie et de la mort, ne peuvent être maintenus dans le devoir par les règles ordinaires qui régissent la cité.’

† ‘A la frontière,’ speaking of subordinate officers, ‘ses soins organisent les troupes et les corps d’armée ; de concert avec l’intendance, il prépare les ressources pour la guerre, les approvisionnements généraux pour les combats et pour l’existence, les munitions, les vivres, les hôpitaux. Par lui l’âme du général anime, échauffe, réunit tous ces corps, toutes ces armes diverses, les pousse vers la borne où finit le pays : un pas de plus, c’est la guerre.’

‘Au combat, l’infanterie se disperse en tirailleurs, pour reconnaître et provoquer l’ennemi, s’allonge en colonnes profondes pour le chasser de ses positions, se développe en lignes étendues pour embrasser le terrain et le couvrir de ses feux ; la cavalerie, plus mobile, plus rapide, plus rude au choc, éclaire tous les mouvements, protège les côtés sans défense, attend l’ennemi pour le surprendre, ou roule en

\* General Lamarque.

† Captain Blondel.



broyant dans la plaine les bataillons renversés par son passage. L'artilleur, actif, agile, audacieux, leur prête à tous, tour à tour, pour l'attaque et pour la défense, le concours ou la protection du boulet et de la mitraille. Que fait l'officier d'état-major? Ses mains, il est vrai, sont vides de trophées, sa lèvre n'est pas noircie par la poudre, l'arme qui pend à son côté a presque constamment dormi dans le fourreau; mais on l'a vu au point du jour, parmi les tirailleurs, crayonner une rapide ébauche des positions de l'ennemi. On l'a vu, guidant les colonnes d'attaque, à travers les balles et la fumée, sur les points que la pensée du général avait donnés pour but à leurs efforts. On l'a vu immobile, servir à la fois de jalon pour marquer la ligne du combat et de point de mire aux coups ennemis. Il a reparu à travers les charges de cavalerie; il a placé l'embuscade; c'est lui qui montrait le chemin dans ce détour par où la retraite fut coupée à l'ennemi vaincu.'

'Au camp, la nuit est venue; le silence succède au tumulte, la lassitude et l'obscurité arrêtent la destruction, les troupes se reposent. La force dort, la pensée veille, le général et l'état-major travaillent: là, on compte les pertes du jour, on prépare les ressources du lendemain; l'un recueille les hauts faits de la journée et les noms des héros qui seront proclamés demain; un autre trace un plan pour servir de renseignement à l'histoire; celui-ci fait les détails nombreux des ordres d'ensemble; celui-là va communiquer de vive voix des instructions plus secrètes, porter la surveillance du général dans les ambulances, dans les magasins, dans les distributions. Avant les premières lueurs du jour, distinguez-vous, aux clartés mourantes du bivouac, cet officier qui s'éloigne suivi de quelques cavaliers? C'est un officier d'état-major; il va chercher une communication dans la montagne, sonder les gués de la rivière, interroger les profondeurs de la forêt: à lui main-

tenant les dangers sans éclat, les efforts sans spectateurs, les succès sans témoins, les belles actions sans historien.'

'Ressorts intelligents, les hommes qui composent cette admirable machine reçoivent, comprennent et subdivisent, pour l'appliquer à tous, la volonté du général. Par leurs yeux, il voit le pays, il connaît les ressources et les obstacles de terrain; par leurs rapports son esprit observe, étudie, devine l'ennemi, en calcule les projets, les faiblesses, les espérances; et quand vient le jour décisif, il lance sans scrupule aux hasards du combat ces jeunes têtes chargées de sa pensée partout où le besoin de l'ordre, l'intérêt de l'armée et de l'état lui défendent d'exposer la sienne, palladium du salut de tous. . . . Telles sont en abrégé les fonctions des officiers d'état-major dans toutes les armées européennes.'

Such also are those functions as they might be represented by an English writer, though with more abridgment and in language somewhat less heroic.

It is undoubtedly very desirable that men of whom so much is expected, and who are intrusted with such important functions, should undergo some special training, and that some guarantee should be exacted by the public against incompetency. Until lately, however, there was nothing of the sort. Appointments to the staff were too often made without reference to other qualifications than those of family, and social or political influence. The present commander-in-chief has lately supplied both the training and the guarantee, in the formation of an institution which is destined to confer an important benefit on the British army. Before the establishment of the Staff College, and the regulations for appointment to the staff adopted in connection therewith, there was in time of peace literally no direct inducement to a young officer, after obtaining the object of his ambition in his first

appointment, to improve himself in his profession, except the love of professional knowledge for its own sake. No advantage was held out as a reward to industry and talent. An ambitious and clever lad without aristocratic friends had no career before him in time of peace. His own exertions, however energetic, could in no way improve his position, or bring him in the eyes of the public honour or credit. He saw himself reduced to wait on the crawling footsteps of promotion, which, if he had money, would arrive within a calculable time; if he had none, might find him a grey-haired subaltern, a military vegetable, without zeal as without hope. The regulations for admission to the Staff College have altered these conditions. They appeal to the ambition, to the self-reliance, to the pluck of all young officers; and it is precisely the ambitious, the self-reliant, and the plucky (morally speaking—for there is no question of the physical pluck of a British ensign or cornet) who make the most valuable officers. Fifteen vacancies in the College every year, competed for on the average by from forty to sixty candidates, afford a good scope for selection; and though only fifteen join the College yearly, the benefit to the public does not stop there; for the unsuccessful candidates will have undoubtedly become more useful in their vocation, than if they had idled away their time as of old instead of preparing for a stiff examination. And it does undoubtedly require a considerable amount of resolution and self-reliance for a youngster to offer himself at a competitive examination so severe as that for admission to the Staff College, when no force is put upon him to do so. In the preparation for that ordeal, too, how much strength of character is manifested by a lad who probably has not long left school; how much self-denial, withdrawal from tempting amusements, and self-discipline generally, it supposes!



And the general result is what might be looked for from these conditions; though it is not pretended that in some cases the better man is not rejected in favour of another far inferior in the most essential qualities of a staff officer.

One case is particularly prominent—that of a young captain who, excelling in games and manly sports, resolved to be in the first flight in intellectuals also. He offered himself for examination; and his name was not among the first fifteen, who could alone be admitted. He went away determining to try in the following year; he did so, and was a second time unsuccessful. He said, ‘I am determined not to be beat in this matter’—he was accustomed to succeed in what he undertook—‘I will carry it through.’ He did carry it through; on the third trial he was successful. The same man determined he would win one of the national military steeplechases; he rode his own horses year after year, always coming near winning, generally deserving to win, till at last he won. And was not the resolute tenacity of which he gave evidence an infinitely higher qualification for a soldier than the mathematics and languages which probably enabled others inferior to surpass him?

Yet, although there are exceptions, the general result is that the men who gain admission to the Staff College are of the cream of the army. They are no mere bookworms; but while working like Senior Wranglers, they in general cultivate hunting, cricket, rackets, and even music and the fine arts, with equal assiduity. As regards the teaching they receive, whether the system on which it is conducted be the best possible or not, the tangible good effected is beyond dispute. The students acquire a certain amount of special military instruction, which must make them more useful in their several spheres than if they had received no such teaching. The study of the campaigns of the great

masters of the art of war forms the groundwork, and imbues the mind with principles, at the same time that it stores it with real examples. These principles they are taught to apply to the actual ground in different supposed cases; and carefully prepared memoirs with illustrative plans are exacted from them, in which every student reasons out his own original plan of action, descending into minute details, and applying the branches of fortification and military sketching, in which all are required to be proficient but which can only be considered as tools of the military art. These, with mathematics and languages, form the curriculum; and those who desire it may study the natural and experimental sciences in addition.

There always will be men, themselves averse to mental exertion, to sneer at the aspirants for entrance into such an institution and to endeavour to discredit its results. Their common argument is, that any examination test, particularly the competitive, really excludes the best men—the men of action—and foists mere bookworms into the places they ought to fill, to the detriment of the service; usually winding up with the injunction to look at the Peninsular army under Wellington, whose staff was the best in the world and yet there were no competitive examinations in his day. The Duke's staff was indeed admirable *at the end of the war*, but that was after it had received the best possible training during years of constant field service before the enemy; and there are many indications that for a long period the staff of the Peninsular army was not immaculate, as is proved by some of the foregoing quotations. But our object should be to provide for the service of the country a body of sensible, manly, energetic, and instructed men, to take up the duties of the staff at the beginning of a war, with a probability that they will fulfil them worthily. To take a broad ground, what is



To take a more prominent example : no one can have read the despatches of our great Duke without having been struck with the deep reflection and study he devoted to military as well as civil subjects from an early age. It was the same also with that other great Duke, Marlborough—as great and as fortunate a soldier ; and, indeed, with all men who have made for themselves a high military renown. He who is by nature a man of action and resource, active, enterprising, hardy, yet wanting in the intellectual faculty which drives its possessor like a goad to acquire all possible knowledge, may make a distinguished figure on a limited field ; but he can trust himself no farther than he actually sees, and his true field of action must always remain limited. Such men are the tools, invaluable tools certainly, in the hands of the Marlboroughs, Wellingtons, Napiers ; but they can rarely become more than this with advantage to the country they serve.

Young officers should, therefore, be on their guard against being influenced by the ridicule which dull and stupid, and in general much older men than they, whose object is to keep others as ignorant as themselves, attempt to cast on what they call the new-fangled system of education and tests. They should learn to believe that without professional knowledge an officer is positively not respectable ; and that every description of knowledge and acquirements will add both to his usefulness, and to the estimation in which he will be held by all men of sense and right feeling.

It is, however, vain to expect that either in England or elsewhere any system can be devised which will invariably give the highest places to the best deserving. In England, as in other countries, birth, connection, wealth, political power, will always have their influence on public appointments so long as human nature remains the same. But



in England this influence, which is abstractedly a corrupt influence, is far less injurious than in such a country as America, because England is essentially an *aristocracy*, the members of which are, as a general rule, the best, the most intelligent, the hardiest, the most active, enduring, enterprising and daring, of the general community. Who but a young Englishman would voluntarily subject himself to the severe discipline that is involved in the training for a boat or foot race? Who else for love of sport would walk knee-deep in heather for twelve hours under an August sun? Who else would ride all day after a fox in England, or a pig in India? All these things he does because he is goaded to it by the spirit within. These bodily exercises are the safety-valve for the escape of his superfluous energy; but they also react on the character, and in spite of Mr. Phillimore's illiberal statement, that the aristocracy of the day 'make the employment of grooms, game-keepers, watermen, and drill-sergeants the serious and almost the sole objects of their children's education,' it is the English games and sports which keep up the national superiority, and prevent our youth in time of peace from degenerating into the contemptible *flaneurs* of the Boulevard and the Corso. In the term aristocracy, all of gentle birth are of course included; the youth meet at the same schools, acquire the same habits, have the same standard of manners and feeling; and an English gentleman recognises no superior in caste, although he pays reverence to the distinctions of rank and the powers that be, as ordained by Providence. Those distinctions of rank have, however, inevitably great influence on the distribution of political power, and of public appointments generally. Many a man in England has, by means of the early start in public life which his family connection has given him, become a minister of state which he could never have hoped to

become without that advantage, and to the exclusion of hundreds more able than himself. The difficulty in these matters is to set your hand on the best man, secure of having found him—an impossibility before trial! How many reputations have dissolved like the fairy cobwebs of early morning when exposed to the sun of opportunity and trial! In the young man of birth and influence who has commended himself by industry and respectable talent, you have at any rate a tangible something you know to be good, though you may be sensible at the same time that it is not *best*.

It is, therefore, certain that in aristocratic England the influence of birth and wealth will always have their weight in determining the distribution of public employments; and, indeed, it is not desirable that it should be otherwise. Arguing on the principle of statistics, we may feel sure that, on the whole, those appointments which are conferred on young men of high birth will be worthily filled. There is much truth in the fine old French motto *Noblesse oblige*; and when it is remembered how many of these, endowed with every gift of nature and fortune, thought shame to remain at ease in England while her armies were fighting in the Peninsula and Crimea, and, putting their lives in their hand, sought the foremost post of danger; it is calculated to inspire an affectionate admiration for a class of men who, without thought or calculation, imperilled so much more than the mass of their countrymen. It may be said, 'A man's life is a man's life, and the lives of two men are of equal value.' Ay! if they would only think so; but they do not! One man is tired of life; another with every faculty of enjoyment in fullest vigour, and with all the appliances of fortune. What comparison can there be between these two *quoad* the motives of self-preservation?

So far as regards the army, staff appointments which

may be called the prizes of the profession, were until lately looked upon as the patrimony of the rich and highly connected: birth and station arrogated, therefore, more than their due share of influence, and no precaution was taken against inefficiency. But a change has taken place. A certain number of staff appointments are now set apart as the heritage of the best men, whose merit is determined by the result of two examinations—one for entrance to the Staff School, the other on departure from it. The remainder are still conferred by patronage; but even these are subjected to a test examination sufficient to provide against incompetency. And this system of compromise is probably as good in its practical operation as any that could be devised.

A bonâ-fide system of advancement in the army on the ground of merit alone, which shall always insure the selection of the best men, must remain for reformers a pleasing dream, and is, indeed, an impossibility under any human institutions. It may be most nearly approached under the government of a strong and sagacious despot, because, not being open to the political or family influence which is brought to bear on a constitutional minister on behalf of this or that candidate, and his personal safety being involved in the efficiency of his army, it is his interest to insure that all important employments shall be filled by the very best men.



## CHAPTER VI.

## ON THE OCCUPATION AND DEFENCE OF A MILITARY POSITION.

IF a general had simply to explore the theatre of war, and to choose for himself that position which, with reference to his total force and to the relative proportions of the three arms composing it, would be the most advantageous possible for defence, his task would be easy. But it is evident that his choice must be limited by the object he proposes to himself to accomplish during the campaign, or, in other words, by his line of operations, as well as by the possible counter-movements of the enemy. He must, therefore, make the best of those positions which offer themselves within the zone of the country comprising the operations of the contending armies.

A position may be occupied either for the purpose of directly barring an enemy's advance to any point threatened by him—and this may be called a purely defensive position; or for the purpose of indirectly influencing his movements by threatening, from a flank, his line of advance or retreat—and this may be termed a manœuvring position: but it is necessary, in the last case as in the first, that your own line of retreat should be at the same time secure, for otherwise the enemy would have the power of causing you the same damage it is your object to inflict upon him. Observing the above condition, the occupation of such a position as last supposed will oblige the enemy to turn

aside to dislodge you before he can safely pursue his ultimate object. Or your relative situations may be reversed; you may be called upon to attack him in chosen positions of the above nature, and you must make the best of the ground actually in his front. There is doubtless an effectual way, if circumstances permit you to employ it, to compel him to abandon his position without fighting, by threatening his line of retreat. But that object would be attempted by a strategical movement; and the subject of this chapter is purely tactical and is limited to *defensive* action.

Bearing in mind the above remarks, the following requirements of a military position are here enumerated, without expecting that all, or indeed many of them, can often be combined on the actual ground occupied by an army. All that can be done is to combine as many as possible in your favour.

1. The ground should be favourable to the action of that arm in which you may happen to have a decided preponderance.

For infantry, high, the approaches thereto being steep and broken;

For artillery, elevated ground, having a long gentle slope towards the enemy, open, and of firm surface;

For cavalry, smooth and firm ground, unimpeded by enclosures.

Where a position combines the above descriptions of ground, it is self-evident that the different arms should be posted at those parts which are the most favourable to their effective action.

Hitherto, the best recognised proportions have been:

Artillery, four guns for every thousand men of the other two arms combined;

Cavalry, one-fourth or fifth of the infantry.

Recent changes in artillery science have altered these proportions, raising the number of guns, and diminishing the troopers in relation to the infantry of an army.

2. A position should have a decided command and open view over the ground by which the enemy must advance, and should not be commanded by any heights unoccupied by you, within artillery range.

It is evident that with the present range of field guns, the last part of the rule will often be difficult, even impossible of fulfilment.

3. A position should be such that the flanks of an army shall find strong protection from the natural features of the ground.

4. The roads by which an army must retreat, if defeated, must be as numerous and easy as possible, and should be well covered and protected by the position.

5. Every position should afford easy communication along the rear between the several parts of the line of battle.

Of the above rules a general may be able to combine several in his favour, or all by rare good fortune. It is well if he should do so; if not, he must make the best of actual circumstances, and the want of natural advantages of ground must be supplied where possible by means of the spade and pick. But the fourth rule above given should be considered arbitrary, and its requirements fulfilled before venturing to accept battle; and this, not because victory is not possible without observing it, but on account of the total destruction which might be caused by its neglect to a defeated army.

#### *On Lines of Retreat.*

The line of retreat of an army must always be the shortest possible line by which it communicates with its



immediate base of operations, whether that base consist of the frontier of its own country, or of a fortified town or intrenched position. Its base should always be some place where it feels secure of finding support and safety when compelled to fall back before a superior or victorious enemy. If an army defeated in a battle be compelled to adopt a circuitous line of retreat in consequence of the enemy having gained possession of that which is the shortest and most direct, the latter will be able to anticipate the army at the point where the circuitous line joins the direct line, and cut it off from its base. It was the circuitous line of retreat from Moscow, which the ravaged and exhausted condition of the country on the direct line induced Napoleon at first to adopt, that enabled the Russians to anticipate him at various important points along the direct line which he was afterwards compelled to recover, and was a principal cause of the frightful losses of the French army in that operation.

It is therefore desirable to have as many roads as possible leading from a military position directly towards the base of the army which occupies it. And especial care must be taken that these roads are free from the encumbrance of trains or baggage within the distance of a full day's march. The French suffered unnecessary loss from a neglect of this precaution in their retreat from the field of Ramillies. The roads, even close up to the rear of the army, were impeded by baggage-wagons, so that the infantry and cavalry became entangled among them, and the guns could make no passage at all; the retreat became a rout, and the whole of the French artillery and baggage was captured. It was from a like cause that the French army came so near being utterly destroyed at Vittoria: all the roads in rear were completely blocked up with the encumbrances of the army, which in this case were swelled

by the court of Joseph, and by the crowds of fugitives from Madrid who accompanied him. Napier's description of the scene will best enforce the necessity of observing this maxim.

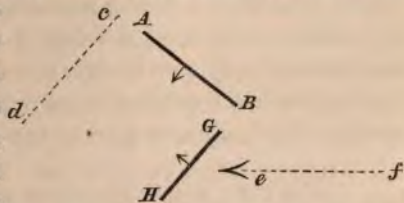
'Many guns were taken as the army advanced, and at six o'clock the French reached the last defensible height, one mile in front of Vittoria. Behind them was the plain in which the city stood; and beyond the city, thousands of carriages and animals and non-combatants, men, women, and children, were crowding together in all the madness of terror; and, as the English shot went booming overhead, the vast crowd started and swerved with a convulsive movement, while a dull and horrid sound of distress arose: but there was no hope, no stay, for army or multitude. It was the wreck of a nation. . . . Thus ended the battle of Vittoria; the French escaped, indeed, with comparatively little loss of men; but, to use Gazan's words, "they lost all their equipages, all their guns, all their treasure, all their stores, all their papers, so that no man could prove how much pay was due to him; generals and subordinate officers alike were reduced to the clothes on their backs, and most of them were barefooted." The trophies were innumerable. The French carried off but two pieces of artillery from the battle. Jourdan's baton of command, a stand of colours, one hundred and forty-three brass pieces—one hundred of which had been used in the fight—all the *parcs* and *depôts* from Madrid, Valladolid, and Burgos; carriages, ammunition, treasure, everything fell into the hands of the victors.'

The most favourable direction for a line of retreat is one which runs perpendicularly to the rear of a position, because it is then the most effectually covered by the line of battle; and it is evident that a line leading to the rear of the centre is better covered than one which leads to the rear from either flank.

An unfavourable direction is one which runs parallel to the general front of an army, or, in other words, which runs to either flank in the prolongation of the general front, because at whatever point the enemy may succeed in piercing the defensive line, he obtains possession of it. An army, moreover, with such a line of retreat may easily be compelled to abandon its position without fighting, as a very slight flank movement on the part of the enemy threatens it at once. Wellington's position at Vimiero had this defect.

The most unfavourable direction possible for a line of retreat is one which leads to the front of any position occupied by an army, because such a direction is completely uncovered to the enemy. At Salamanca, Wellington's second position had this defect. His line of retreat was

by the Ciudad Rodrigo road, shown by the dotted line  $c d$ ; the French advance was by the dotted line  $e f$ ; and if they had formed at  $G H$ , with their



right resting on the hill called the French Arapiles, the English army could not have moved off safely by the line  $c d$ , except by night. But an attacking force is as much concerned for the safety of its retreat as one which is on the defensive; and in this case Marmont's impetuosity and eagerness to seize on Wellington's line of retreat  $c d$ , betrayed him into the fatal error of making a flank march across the front of the allied army, and of exposing his own line  $e f$ .

It follows as a corollary to the foregoing remarks, that you should not occupy any position having a defile in rear through which your army must retreat if defeated. A



skilful enemy must always have you at his mercy; if he overtake your army while in the act of passing the defile, he may wait to attack until one half of your troops being committed in the pass, he can direct the whole of his force against the remaining half. An unfordable river in rear of a position is equally dangerous, unless you have previously provided so many bridges that the march of your retreating columns shall not be checked. It must be remembered that any passage becomes a defile if it is so contracted that troops moving through it are unable to assume an effective formation for defence. Thus one bridge will constitute a defile where a given force will be cramped and its movements delayed, whereas the same force moving in several columns over several bridges will suffer no inconvenience.

But if obliged to fight a pursuing enemy at the entrance of a defile, or with your back to a river over which you may possess only one bridge, the danger will be lessened by the previous construction of a *tête de pont*, or of works similar in principle, to protect the entrance to the defile.

#### *On the Communications of a Battle-field.*

The rule, No. 5, which enjoins on a general to provide rapid and easy communication between the several parts of his line, is of the greatest importance, and there should be no excuse but that of want of time for its non-fulfilment. The whole secret of war consists in being superior to the enemy at the point of collision. It has been by skilful tactical arrangements directed to this end, that able generals have sometimes defeated the greatly superior forces opposed to them; and rapid communication between the different bodies of troops under their command, was the means by which they worked. In technical language, they operated on *interior lines*; that is to say, their combina-

tions were such as to enable them to concentrate at any given point, whether strategically on the theatre of war, or tactically on a field of battle, more rapidly than the enemy could there concentrate.

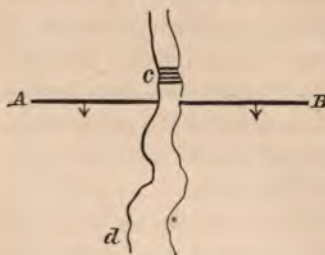
In military operations *time* is everything ; it is the most valuable of all allies if in your favour, or the most dangerous of enemies if against you. It avails nothing to have a superior force on a field of battle, if a general do not so handle his troops as to be superior to the enemy at the point where the issue is to be decided. It seems easy in meditating the scheme of a battle to say, *if the enemy threaten such or such a point by a sudden movement, I will send so many battalions to reinforce it.* But the time the reinforcing battalions will take to reach any point required, must be the principal element in the calculation. That time, too, must be estimated, not by distance only, but by the nature of the ground the troops must pass over and the obstacles they would have to surmount. If that time be not estimated correctly, they may not arrive until after the defeat of the troops they were sent to support ; in which case, although they may be too late by only a few moments, they will find the event already decided, and themselves exposed to be attacked and beaten by a superior and victorious enemy.

The first care of a general should therefore be to provide good communication between the several parts of his own line, at the same time that he spares no pains to create obstacles in the way of an enemy advancing to attack him. If woods or enclosures exist which would impede the lateral movement of his troops along the rear of the line, paths must be made through the first, and the last must be levelled. If we suppose a stream or ravine to intersect his position at right angles, it should be spanned with as many bridges as would enable troops and guns to pass

from one side to the other as freely as if no such feature existed.

It would evidently be a great advantage to the defenders of a position, if the enemy, in advancing to attack it, found his line separated into two parts by some obstacle which would forbid communication between those separated parts and which yet did not impede communication between the different parts of the defensive position.

As an example, let it be supposed that you occupy a position, *A B*, which is cut transversely by a stream, *c d*, over



which there are no bridges and which is unfordable. By throwing bridges at *c*, the passage of your troops and guns from one side to the other may be made as easy as if no such obstacle existed. The enemy, on the other hand, in advancing to attack will

be cut in two; and here you will have an opportunity of assuming the offensive with great advantage. By means of the bridges, you may concentrate a superior force to overwhelm the weaker of his separated portions on one side of the stream, while you hold the other in check on the other side of the stream until your success against the first portion shall enable you to return to overwhelm the remainder. Where time admits, it will always be prudent so to strengthen your general line by judiciously-constructed intrenchments, that you may be able to hold either side of the stream for a time with a much smaller force than that which would be employed to attack it.

If the enemy, instead of dividing his army, should, by means of bridges constructed at some distance from your position, operate with his whole force on one side of the



stream, you have the option of either opposing him on that side with your united army, or of drawing it entirely to the other side, thereby offering a new front covered by the river. Such a proceeding on your part, however, would be only admissible in the case where your line of retreat lies on that side of the river which you occupy. But a like consideration must rule the movements of the enemy: it is evident that he could not safely transfer his force to one side of the stream, if his line of retreat, lying on the other side, was thereby laid open to you.

Of the same nature in principle as the foregoing example, would be a lake or marsh covering part of your front. The lake in this case forms a certain portion of your line of defence. You may leave that part to guard itself, so as to be stronger for the defence of those parts which are open to attack. But the enemy in advancing will be separated by the lake; to reinforce one of the separated portions from the other, he must make a long *détour*, at the expense of time which may be employed by you to beat the troops in your front before his reinforcements can arrive to their aid. The march of your own troops being unimpeded in rear of the lake, you can always be stronger than the enemy on the side on which you may choose to take the offensive. You operate, in fact, on interior lines; the enemy, on exterior.



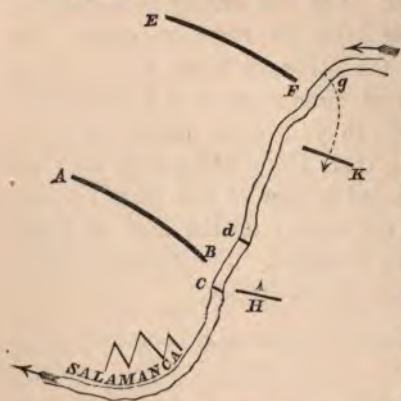
Should other circumstances render it desirable, your line might be safely established as far forward as the dotted line *a b*: by so doing, however, you relinquish the advantages of communication possessed by the first supposed line *A B*, as it is evident that the two armies are in the

last supposed case on equal terms in that respect, having an equal détour to make before the one side of the lake can be reached from the other. It is also clear that it would be dangerous to establish your line in a more forward position than *a b*, because every foot in advance must shorten the enemy's lateral communications, and render your own more difficult.

The following examples serve to illustrate these remarks. When Wellington was besieging the forts of Salamanca, he occupied a position, *A B*, with his right resting on the Tormes, and having the fords of Santa Marta, *c*, immediately in rear of his right, with another ford, *d*, in front of his right, the possession of which last he secured by an advanced body of troops.

Marmont was in his front with a force about equal, occupying a position, *E F*, his left resting on the Tormes at the ford of Huerta, *g*. The object of the French general was to succour the besieged forts of Salamanca; that of the English commander was to prevent him. The latter sent a body of heavy cavalry across the river by the ford *c*, with orders to watch the enemy's ford *g*.

Wellington's position being too strong to be forced, Marmont sent 12,000 infantry, 20 guns, and a body of light cavalry across the ford *g*, to endeavour to open a communication with the besieged forts by the left bank of the river.



Wellington's counter-move was to detach General Graham with two divisions and 18 guns across the Tormes at *c*, to oppose the advance of the French on that side. These formed in order of battle at *h*, and Wellington at the same time closed his line towards the river. The general positions of the French and English after these movements are represented respectively by *E F K* and *A B H*, and afford a perfect illustration of the foregoing remarks with reference to the separation of two hostile armies, each into two parts, by a river.

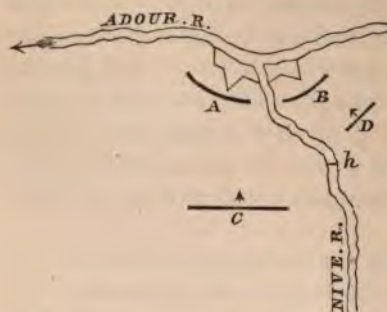
Wellington, standing on the defensive, had a short and easy communication between the two sides of the river by the fords *c* and *d*; while Marmont, in advancing a portion of his force by the left bank, lengthened at every step its communication with the rest of his army on the right bank. The English general could evidently by means of his fords assemble an overwhelming force to oppose the French detachment on the left bank, while he could act against its flank or rear by means of the ford *d*. Marmont however did not give him the opportunity, for perceiving his error in time he recalled his troops from the left bank to their original position.

Another example from the operations around Bayonne in December 1813:—

Soult's army was extended on both sides of the Nive, covering the intrenched camp of Bayonne. He had a good stone bridge within the town, by means of which he could pass rapidly and securely to either side of the river at pleasure. The French general position is represented by *A B*. After the passage of the Nive, the English army was divided by that river. Hill's corps, 14,000 men with 14 guns, was on the right bank at *d*. The remainder of the army, on the left bank at *c*, consisted of 35,000 men and 24 guns. The shortest



communication between these two bodies was by the bridge of Ustaritz, several miles in rear of *c*.



Soult availed himself of his bridge and central position to concentrate nearly 60,000 men of all arms on the left bank of the Nive, and attacked Wellington on that side, whose divisions were moreover scattered, on the 10th, and again on the 11th and 12th. The

British, however, held their ground. Wellington had meanwhile caused a boat-bridge to be constructed at *h*, to shorten the communication with Hill; but a storm carried away this bridge in the night of the 12th, and on the morning of the 13th Hill's weak force was assailed by 35,000 French, whom Soult had concentrated against him on that side of the Nive, by passing them through Bayonne after their retreat from the combats of the three preceding days on the left bank. From half-past eight in the morning until noon, Hill, entirely cut off from all communication with the main body of the army, had to make head against this overwhelming force; but at the last-named hour the re-establishment of the bridge *h* having been completed, the divisions from the other side commenced arriving, and the French retreated.

The communications of a battle-field have not reference alone to lateral movements; they comprise likewise all the approaches to a position both from the front and the rear. The latter have been already remarked upon under the head of *Lines of Retreat*; the former remain now to be considered.

It is evident that the defensive commander should so provide, that while his own communications to the front, to the rear, and laterally, are perfectly free, the enemy's approach to the position, and the lateral communication between his columns of attack during that approach, shall be as much as possible impeded.

The approaches to any position from the front or flanks are those by which an enemy must advance to attack it. To impede him, advantage must be taken of every accident of ground in your front. You will for this purpose intrench isolated hills or any strong buildings, and occupy the edges of any small woods or other enclosures. He must attack and carry such points before he can safely venture to attack the main position behind them, or he must leave a force in their front to mask them—a force superior to that with which they are held.

It is also a great advantage to the defenders of a position, if the ground over which an enemy must pass to attack, supposing it to be within artillery range though beyond that of musketry, should be broken by enclosures or difficult ground of any sort. For if the enemy march in dense columns by the avenues left between those obstacles, he will be exposed to loss from the guns of the position. If, on the other hand, to avoid this danger he advance in line, his array must inevitably be seriously broken by the obstacles, creating a confusion which it will take considerable time to remedy.

Similarly, the existence of a river which the enemy must pass to attack a position, within artillery range, even though it may be everywhere fordable, will break the enemy's array and expose him to loss from the guns of the defenders; for the banks on one side or the other may be precipitous, or rocks and holes in the river-bed may occur, which will cause the troops to break their

order of march in line, and to crowd towards those spots where the passage is most easy.

The two last paragraphs find an exact illustration in the advance of the English army to attack the position of the Alma. The troops, marching in line to avoid the fire of the Russian guns, found their progress impeded by a labyrinth of houses, gardens, and enclosures, which caused great confusion; and after these were passed there was the Alma river still to ford with its uneven bed and precipitous banks.\*

#### *On Tactical Points.*

All points strengthened and occupied in advance of your line for the purpose of strengthening your position, or of impeding the approach of the enemy, are called technically *tactical points*, and their advantage consists in this: that the enemy cannot neglect these points, because they would cut the communication between his advancing columns; they would harass the flanks of those columns in their advance, and impede their retreat if repulsed from the main position. He must therefore attack them. If able to be quickly and securely reinforced from your line, as they ought to be, he finds himself engaged in a serious combat, unforeseen and unexpected, which deranges his plans, at a point distant from his own supports, where his success would only be injurious to you in a secondary degree, and where you have an opportunity of inflicting a serious loss upon him.

The tactical points in front of your position are of the same nature in principle as fortified places occupied by your troops on the theatre of war; they strengthen your own line of operations, while they weaken that of the enemy.

\* See the *Battle of the Alma*, on page 238.



The tactical points which cover the front of a position are analogous to fortresses covering the strategical front of an army; which the enemy must either take or mask with a superior force before he can venture to approach your strategical position. If he neglected to do so, the garrisons, sallying from the fortresses, would intercept his supplies and reinforcements, and would endanger his retreat if obliged to fall back.

The tactical points which you may occupy as advanced posts strengthen, then, the line of march of your own troops who leave their position to attack the enemy. They form so many supports to your columns of attack; and if these should be repulsed, they afford means to check the enemy's columns in pursuit, and offer rallying-points for your own in retreat.

But, apart from the advantage you may derive otherwise from the occupation and maintenance of such advanced posts, it is absolutely essential to the safety of your position that you should prevent the enemy from seizing any points which are naturally strong in your front, within musketry range—such as hills, villages, enclosures or woods—under cover of which he could form his columns of attack, and from which he could incommode your main position by his fire.

The château of Hougoumont is an excellent example of a good advanced post of this nature. It was situated only about forty yards in front of the crest of the Waterloo position, and completely covered the extreme right of the allied army, from which also it could receive constant reinforcements in perfect security; its flanks were swept by the guns from the position in rear, and it was capable of holding guns to protect its own front. If Napoleon had succeeded in gaining that post, the English right would have been in the greatest danger.

In general terms, every feature of ground where an enemy might find cover within musket-shot of the front of a position should be occupied by the defenders. The necessary conditions which apply to these, as to all tactical points, are that they shall be flanked by the fire of the guns in rear which should if possible cross in front of them, and that they shall be capable of being quickly and securely reinforced.

If a village exist in front of your line which from any cause you do not occupy, or which having once occupied you may be compelled to abandon, it should be set on fire. The continuity of the enemy's attacking columns will be thereby broken, and his advance rendered more difficult. The same applies to any collection of buildings.

At the battle of the Alma, the firing by the Russians of the village of Bourliouk and the neighbouring houses, broke the continuity of the English line in advancing, and was productive of very serious confusion.

The term *tactical point* is not confined to posts which may be occupied in front of a line of battle. Points there are also, occurring in the actual line of battle or main position, on which that term is bestowed. The *flanks* and *centre* of every military position are among these, on account of the great importance of their preservation to the general defence. These are invariable; others are accidental,—that is to say, they vary with the actual ground, and they may be defined in general terms as any points, the possession of which by the enemy, if he succeed in carrying them, would seriously endanger the general defence of the position, or the safety of the army in its retreat.

Hence it follows that any rising ground occurring in a position which commands the remainder, comes under this denomination.

Also, those parts of the line covering the roads by which an army must retreat; because if the enemy succeed in piercing those parts of the line, he will obtain possession of those roads, and the retreat of the army will be cut off.

All points, therefore, being of the nature of those above described, should receive your first care when called upon to occupy a defensive position. If not already strong by nature, they must be made so artificially. It needs only to ask the question, *What parts of the position should I select for attack if held by the enemy?* to obtain a guide to the discovery of the points referred to.

The term *decisive* is technically applied to those tactical points, the possession and maintenance of which by the enemy would compel a defensive force to abandon its position, or would entail its defeat.

The 'fatal hill' on Beresford's right at Albuera, which was the scene of such changing fortune and of so great slaughter during the battle, may be instanced as a *decisive tactical point*: also the hill on Wellington's left at Talavera. It may be remarked, that any point in a line of battle may become a decisive tactical point by the result; that is to say, at whatever part an enemy may obtain such a success as determines the ultimate issue, there is the decisive tactical point of that field. At Talavera, the centre was near becoming the decisive point; for if the French could have maintained the advantage they there won, victory must have been theirs. In preparing a position for defence, however, a general can only consider those points which, on account of natural or accidental circumstances, are likely to become decisive.

The defile which covered the French left at Vittoria was an important tactical point; because if it had been successfully defended, Wellington could not have attacked their army on the left flank, and rolled it back, as it were, on



their right : but the decisive tactical point of that field was at the bridges of Gamara and Ariaga, which covered the French right flank and their line of retreat, and which were so gallantly defended by Reille,—because if those bridges had been carried, the British would have obtained possession of the French line of retreat, and at least two-thirds of their army would have been cut off.

Where a position is covered in front by a river or marsh only to be traversed by means of bridges or causeways, it may seem at first sight as if the most judicious mode of proceeding would be to destroy the existing passages over those obstacles ; but this would be to misconceive the true spirit of a defensive action, which consists in opposing a firm defence to the attempts of the enemy along your front, while you retain the power, and watch for the occasion, of vigorously assuming the offensive in your turn. Now, by breaking down the bridges and destroying the causeways over a river or marsh covering the front of a position, although you may render it very difficult for the enemy to reach you, you at the same time debar yourself from all power of injuring him. Safety may be yours ; but victory, which is the object of every general, you could never achieve by such a course. The true secret of a good defensive position, is to cover the front with what will be impediments to the attacking force, though not to the defenders ; to strew the path of your enemy with obstacles, while you remove them from your own. In this view, those bridges or causeways only which would particularly facilitate offensive action on your part should be preserved, care being taken so to protect them by works, and to concentrate upon them such a fire, as to render any attempt to capture them by the enemy highly difficult and dangerous to him. These will be advanced posts of the most favourable description, defiles where a small force can

arrest a large one. If the enemy persist in attempting to capture them, he will be obliged to employ a large force for the purpose, and thereby to engage in a serious struggle at a distance from his ultimate object. Precisely the same reasoning applies to all defiles through which an enemy must pass to attack you: the roads through these must be effectually destroyed, or only intrenched, according as it may appear more advantageous to shut them up completely, or to keep them uninjured with a view to employing them offensively.

The description of the battle of Vittoria, which will be found further on,\* affords a good illustration of the remarks contained in the foregoing paragraph.

It has been laid down as one of the peculiarities of a good defensive position, that it should have a complete command and open view over the ground by which an enemy must advance. This is, however, very frequently not the case. Hills or woods may exist in front, under cover of which the whole or a part of the hostile army may approach your position. Where these are within the sphere of defensive occupation by your troops, they simply come under the head of tactical points. When beyond that sphere and within reasonable distance, all such features should be occupied for *observation*; that is, the outposts of the defensive army should extend to such places, so that it would be impossible for a hostile force to approach under cover of those features without being detected.

Take the case of a position three miles long, occupied by an army, A. In front of the right, and within ten minutes' march of the right flank of A, is a hill unoccupied by that army as a post of observation. Behind that hill the enemy, B, has, without being observed, assembled

\* See page 164.

half his force, while he amuses A with a drawn-out display of the remainder in front of the open part of the position, and makes a feigned or real attack on the centre. The attention of A being drawn to this point, B suddenly launches the concealed half of his force against A's right flank, which can be reached in ten minutes. The latter is ignorant of the dangerous proximity of these troops until they break out from behind the hill which had concealed them. A few minutes being given to uncertainty on the part of A as to the object of this movement, six or seven minutes are all that will remain to him to bring up troops from the rest of a line, three miles long, to reinforce the threatened point.

This was precisely the case at Albuera. In front of Beresford's right wing was a hill, behind which, as he had neglected to occupy it, Soult assembled 15,000 men and 30 guns within ten minutes' march of Beresford's right flank, and thus the French were able to bring an overwhelming force against that part of his line before he could have time to reinforce it.

*On the most advantageous General Form of a Position.*

When the flanks are strongly protected by natural obstacles, probably the most advantageous general form of a position is one concave towards the front, i.e., flanks advanced and centre retired; because if the enemy should be induced by the strength of the flanks to attack the centre, he enters a loop over which the guns of the position cross their fire with the fullest effect, and he moreover lends his flanks, to a certain extent, to the attack of the troops posted along the sides of the loop.

Where the troops do not rest on strong ground, and where the centre is naturally strong, the best form is that which is convex towards the front i.e., having the centre



advanced and flanks retired. This form has also the advantage of covering the line of retreat better than the first; at the same time that it enables any one part of the line to be more quickly reinforced from any other part, because troops passing between any two parts move on the chord of an arc, while in the first case, all movements of that nature being in rear of the line, troops passing between any two parts must march round the circumference. It may be said generally, that all the communications of a convex position are shorter than those of any other configuration; it is evidently the most favourable to the action of the reserve, since that body, to reinforce any given point in the line, moves on the radius, as it were, of the circumference.

The centre of every line of battle, without regard to the nature of the ground, has the inherent property of being the strongest in one important particular—in that it can be doubly reinforced from the two flanks in half the time that would be requisite to reinforce one flank from the other.

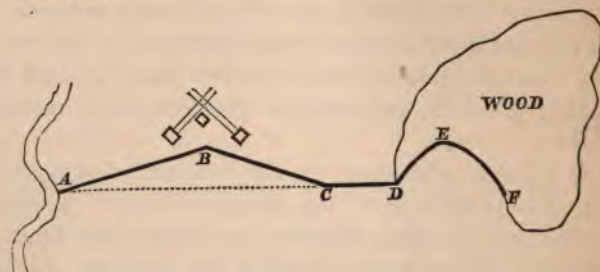
It is a great advantage to the strength of a position that it should present to the enemy a number of salient and re-entering angles, both on account of the flanking fire thereby obtained, and because the necessity thereby imposed on the enemy of making himself master of the salient points before he can venture his troops into the loop between them, enables the defenders comparatively to neglect the re-entering parts of the line, and to direct their efforts to rendering the advanced points as strong as possible.

Even in the case where an army is drawn up for battle in a plain, such a form may be given to the line, regard being had to the preceding paragraph, that the enemy may be forced to attack certain points, on which in

anticipation all the means and appliances at hand have been lavished for their defence.

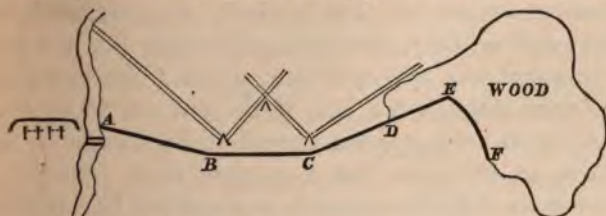
In such a case, if no natural obstacles protect the flanks, they must be refused—this rule can admit of no exception—and they must further either be strengthened by works, or by posting a force, composed of the three arms in echelon, to the rear of those flanks. The last contrivance would oblige the enemy to make a long *détour* before he could turn either flank, thereby giving time for new dispositions.

But it usually happens, that where an army occupies a defensive position in a plain, the flanks are secured by some natural features. Take the following case, where the flanks rest on a river and a wood. Instead of occupying the straight line  $A C D$ , let us suppose the army formed in  $A B C D E F$ .



The enemy cannot prudently venture into the angles at  $A$  and  $C$ ; he must therefore attack the salient points  $B$  and  $E$ . The part  $D E F$  will of course be covered by abattis, and all the trees in front felled to a distance of one hundred yards: if the wood were of no very great extent, the edges of it towards the enemy would also be occupied, care being taken to provide paths for retreat to the main line in rear. The angle  $B$ , as being the weakest and most exposed part of the line, should be strengthened by redoubts or other field-works.

The above example is from the writings of Frederick the Great; but the form given to the line has the defect of enabling the enemy to enfilade the faces A B, B C, by planting batteries at a distance in prolongation of their direction. The following diagram would seem to present a better arrangement. The forward position of the left flank is no defect, since it is protected by the river, and the centre, which is here the weakest part so far as concerns any aid from the natural ground, is removed farthest from the enemy, who must expose his flank if he venture to attack it, and no part of the position is exposed to enfilade-fire unless the enemy should throw a bridge and transport guns across the river; in which case the defenders, having constructed a bridge in rear of A in the apprehension of such an attempt, would employ it to oppose the enemy's design.



*On the Number of Troops required to occupy any Position.*

The first consideration of a general about to occupy a military position must be, whether its nature and extent are such that it can be effectually defended by the force at his disposal. It is possible that his troops might be either too many or too few. It is to be remembered that the excellence of a position can be *relative* only, both in respect to that occupied by the enemy, and to the number of troops available for its defence. The strongest ground in the world would be useless, in a military sense,



without an enemy to oppose; and having an enemy to fight, the strongest ground would be useless, unless it was suited to the numbers who were to occupy it. It might be an admirable battle-ground for a larger or for a smaller force, though not for the actual army concerned.

The number of men required to line a position effectively depends very much on the nature of the ground. Parts may be so strong by nature as to require few defenders, or even none: inaccessible rocks or a lake occurring in the line would come under the last head; while other parts are weak, and require more than the average number for their defence.

The guide to the solution of the problem is—that 5,000 men (infantry) in two ranks, formed in line, cover rather more than one mile of ground. But this number allows of neither second line nor reserve; the surplus, being cavalry and artillery, form only adjuncts to the action of the infantry, who can open out to admit the passage of those arms through the line, to the front or to the rear, according to necessity, but should itself always be able to form an unbroken and continuous line. During an action some of the battalions or brigades may be compelled temporarily to fall back; the line becomes irregular, and if the gaps so created cannot be filled with troops from a second line the consequences would be very serious. We may therefore conclude that under no circumstances of ground, however advantageous, can it be safe to hold a position with less than 5,000 men to each mile; and this only in the very strongest ground where, as above suggested, natural obstacles in some parts guard themselves, and so render it possible to garnish the more open parts of the position beyond the proportion that would be due to them if the whole line were equally occupied throughout. Yet, although it is necessary to lay down this rule, necessity has no master,

and situations may arise in which it must be violated from higher considerations than mere tactical laws. If the glorious handful of defenders who preserved India to England during the Mutiny had acted on this prescription, it is seldom they would have shown face to the enemy at all.

Ordinarily, it may be considered that it is by no means advisable to hold a position, such as the generality of positions are—a mixture of strength and weakness—with less than two lines and a reserve. This allowance would give in ground of average strength at least 12,000 men to the mile, and probably, owing to the degree in which artillery has mounted in the scale of comparison, at least 48 guns. There would seem, however, to be no limit to the number of men per mile, beyond the necessity that the area on which the battle is to be fought shall not be so contracted as to preclude the whole force being brought into vigorous and effective action for the purpose of deciding the issue. The extreme case of a defile may be taken for the purpose of explanation. In a defile superior numbers are neutralised, and the combat is decided by the bravery of the comparatively few men who occupy the front ranks on both sides. The operation of turning a defile by the heights on either side is not here considered: it is of course always resorted to where possible, and in such an operation superior numbers are everything; but there are defiles, such as a bridge over a river, or a causeway over a marsh, in which that proceeding is not possible. Now, just as a gorge ten yards wide is a good battle-position for 200 men who can defend it with a front of ten files, at the same time that it becomes a defile for 2,000 men; so a valley, which may be a good battle-position for 5,000 men, becomes a defile for 50,000 where the superior numbers of the latter would be cramped and their action nullified.

*On Natural Aids to the Strength of a Position.*

As regards the principal line, a general's first care will be for his flanks. It is good that these should rest on an unfordable river, or marsh, or side of a precipitous hill, or large and thick wood; or that they should be on high and broken ground, the approaches to which are steep and difficult: the further these obstacles extend to the rear, the more perfect is the protection obtained from them. A village forms an excellent support to any flank when it is properly intrenched and occupied.

A wood or village situated some distance in rear of a flank forms a strong support, and all the better if it should be somewhat beyond it, because the troops which occupy them can take in flank the enemy if he attack the flank of the main position without having first carried those posts. His cavalry, in particular, could not venture to pass round the position to act against the rear without making a long *détour* to avoid them.

Any high ground occurring along the front which commands the rest, is an aid to the strength of a position: also any lake, marsh, or wood, provided there be perfectly free communication in the rear of these obstacles, or across them, for reasons already explained; and, in general terms, any ground to which access from the front is difficult.

As regards the front: a river or marsh covering any part of the line; villages, houses, enclosures, woods, isolated hills, ravines, broken ground, or any other accidents which may break the enemy's order in advancing and separate his columns.

Examples of all these will be found further on in this chapter, in the particular description of different positions actually occupied and defended against an enemy during the Peninsular War.\*

\* See page 151.



*On Artificial Aids to the Strength of a Position.*

Napoleon has said that 'the natural positions which are generally met with cannot protect an army from the attacks of a superior force without the aid of art.' Where time admits, therefore, field-works should be constructed, not only at various points in the main position, but also for the purpose of strengthening such posts in advance as it may be desirable to hold. Of the first, the flanks, if weak, should be protected by works, usually redoubts, the precise locality of which must depend principally on the nature of the ground. A favourable situation for these, where local circumstances are not adverse, is in echelon to the rear of the flank to be protected, that is, in rear and beyond it; because a redoubt will there flank the extremity of the line, and will, moreover, oblige an enemy to make a longer *détour* than would be otherwise required to turn that flank, as well as to embrace the supporting work in his dispositions of attack in that quarter.

The next care should be to cover the guns of position from counter-battery, so that they may be able to direct their whole attention against the enemy's advancing columns. The most advantageous localities for these guns will be considered farther on.

Next, those parts of the position which are immediately in front of roads by which the army would retreat must be rendered as strong as possible, if they are not already strong by nature.

Lastly, any exceptionally weak parts must be strengthened.

With respect to advanced posts. If a river cover the front, those bridges which are not destroyed must be intrenched. Where the ground in front of such bridges (on the farther side) is very favourable, its possession may be

disputed by means of a *tête de pont*, or intrenchments covering the head of the bridge, adapted to the shape of the ground. If a high bluff exist on the farther side, commanding at once the ground towards the enemy and the hither bank of the stream, it should invariably be occupied and intrenched if it is desired to preserve the bridge behind it; but if that bluff be itself commanded by other heights in the enemy's possession, so that the troops defending it could not find cover from hostile fire—or if the river should curve in such a manner that the enemy from any point above or below stream should be able to take it in reverse, it is untenable, and the bridge itself would not be defensible without the employment of means which might not be at the command of the defenders: if so, it should be destroyed. A wood covering the head of a bridge forms a natural *tête de pont*; but its strength should be improved by art, and if advanced from the river, its flanks must be connected with the bank on either side. The best protection to a bridge, however, is a village, which, if properly intrenched, becomes a fortress; and where the village extends on both sides of the river, it forms a double *tête de pont*. The village of Ligny, covering the bridge on both sides of the stream, enabled the Prussians to hold the French at bay during the whole of that battle.

Fords should be intrenched, if they are not destroyed; likewise woods, villages, or strong houses lying in the enemy's path; as well as any strong ground which would flank his columns in advancing; provided such posts are under the fire of the position and are capable of being easily reinforced, at the same time that their garrisons have an easy retreat.

Important outposts though of observation merely, should be intrenched if possible. These are the watch-dogs of an

army, and to delay an enemy, even for a few minutes, may be of vast importance to its safety.

*On the Disposition of the Troops in a Defensive Position.*

As a general rule, an army in order of battle should be distributed in two lines and a reserve. It is not necessary that the two lines should be of equal strength. It is necessary that there should always be a reserve—the stronger the better where the exigencies of the general line are not sacrificed; it should never be less than one-sixth of the whole.

The troops will be distributed along the defensive line according to the strength or weakness of its several parts. Intrenchments enable a small body of men to resist a large one. Ground strong by nature confers the same advantage. If you can occupy your position in such a manner that in order to attack a certain point the enemy must employ a larger force than you need for its defence, you are *pro tanto* stronger than he along the remaining portions of your line. Strong ground or field-works may enable you to occupy your position effectively with half the force that would have been required without those aids. In such a case the remaining half might be in reserve, posted in the most convenient situations for speedily reinforcing the most important parts of your line of battle; and this would be a far more effective mode of employing the surplus than by distributing it over the general line.

If your army, 20,000 strong, be so disposed and your position be such that you can occupy one half of it effectively with 5,000 men, you have 15,000 at liberty for the defence of the other half. On the other hand, if your enemy's force of the same strength be equally disseminated—that is to say, if he distribute his troops equally, 10,000 to each wing—you are able with 5,000 men, by reason of the strength of their ground, to hold in check one of the



enemy's wings, with the power of directing your remaining 15,000 men against his other wing of 10,000.

Some parts of a position will be naturally stronger than others. Some parts will be of more importance than others to the general defence. The necessities of the weak parts and of those which from their situation are the most important, where time has not admitted of intrenchments, must be supplied by posting in those localities more than their proportionate number of troops. One mile of the front may safely be defended by one division, while another may require two or even three divisions to render it secure. For instance, rocky and precipitous ground, or the edge of a wood, may be adequately defended, in first line, by one man to every yard; whereas the allowance for open ground must be at least two men to every pace of thirty inches.

In general terms, the correct occupation\* of a position according to military principles demands such a disposition of the troops as to insure the concentration of the largest possible force, regard being had to the actual number of defenders, at any point required, in the shortest possible time.

#### *On the Distribution of the Three Arms.*

It is unnecessary to specify particularly the posts that should be assigned to the infantry. It is the backbone of the army, and should be found in opposition to an enemy at every point.

In future battles, artillery will play a more important part than heretofore, both in regard to the increased proportion of guns and to the greater range and accuracy of projectiles. There are two descriptions of artillery to be considered, viz., guns of position and field-guns. The first on account of their weight are usually posted at

certain points which they are intended to occupy permanently during the whole of an engagement; although it is a great advantage to be able to manœuvre them, as is sometimes done.

Guns of position should be protected from counter-battery by earthworks: some of them at least should be placed where they can produce the greatest possible effect on the enemy's advancing columns while still at a distance; though, generally speaking, they should not be pushed so far forward as to render it difficult to carry them off if the army should retreat in haste. Hence, if the position present salient and re-entering angles, the heavy guns should be placed in the re-entering bends, whence their fire will flank the salient points or cross in front of them, and where they will be the least liable to be attacked; for before an enemy could venture to assail the re-entering parts, he must first carry the salients. If it should be advantageous to place heavy guns at a salient point of a position, they should be strongly protected by field-works, as well as strongly guarded by infantry, and measures taken which shall enable them to be withdrawn without delay in case of necessity.

Generally speaking, guns intended for defence should not be massed in large numbers at any one point; because if that part of the line where they are posted does not happen to be attacked, their action is lost. For offensive action, on the other hand, artillery should be in strong masses, to produce a weakening effect on any part of the enemy's line you may design to attack.

It follows that as nearly every battle must be made up of a mixed scheme of attack and defence, the heavy guns and the divisional batteries should be distributed along the general line for defence; so placed that while they themselves occupy the strongest parts, their fire shall cross in

front of the weakest, at the same time that they fulfil the important object of flanking such advanced posts as may have been occupied in front of the line of battle.

While, for attack, as strong a reserve as possible is kept in hand for decisive action at the right moment. For this object rapid movement is essential, and this reserve will therefore be composed of field artillery; but no pains should be spared to horse efficiently at least one battery of the heaviest guns it is possible to move in the field, to accompany the others.\* Both at Friedland and Wagram, Napoleon owed his ultimate success, when the chances seemed to be greatly against him, to the action of a powerful artillery reserve of this nature.

Where they are not covered by works, guns derive a certain amount of protection, both from fire and assault, from any broken or marshy ground or enclosures in their front. When placed on the very summit of a precipitous hill, although they may appear to the uninformed eye to offer the best of all marks to the hostile artillery, they yet derive a very sensible advantage from such a situation, because the enemy's bullets must strike them fair or not at all. If they fall short by only a foot, they are killed by the precipitous wall of the hill; whereas if the ground were sloping, they would ricochet.

But it must be remembered that just in the same proportion as guns are protected by any difficult or inaccessible ground covering them, their free movement to the front is impeded. Every battery, therefore, so placed should be able to move rapidly to the rear, and thence to either flank, for the purpose of making a forward movement at the nearest point where the ground is favourable, if the

\* Our heaviest guns of position were until lately 18-pounders, weighing 30 cwt. Our present guns of position are the Armstrong 40 and 20-pounders, weighing respectively 37 and 16 cwt.



changes and chances of the battle should render it advisable.

Artillerists lay down the rule, that the greatest effect obtainable from guns is where they fire over a surface gently sloping downwards towards the enemy like the glacis of a fortress, and that a plunging fire is unprofitable. But the physical effect alone is here referred to; and the moral effect of artillery, which is very great, should not be left out of consideration. Although, therefore, the destructive action of guns is greatest when the flight of the shot is most nearly parallel to the surface on which an enemy is formed or marching, yet in view of the moral influence—the intimidation created in the minds, particularly of young soldiers, by the ghastly and horrible effects of one well-directed shot—it is good to place a few guns on a height which completely dominates the enemy's position, and which is not itself commanded by any hill in his possession. His inability to return a fire to which he is yet entirely exposed produces a moral effect so powerful, that it requires a very unusual degree of discipline and experience in his troops altogether to withstand it. His only alternative is to attack and capture the guns which so molest him; and then is the time to bring up other guns to batter his flanks in his advance for that purpose.

Before the beginning of a battle, guns should be masked as far as possible from the observation of the enemy, either by placing them behind rising ground or behind infantry: if the latter, care must be taken to provide a free passage for the guns through the line of infantry. The infantry may either wheel back by divisions for that purpose, or intervals may be left between two adjacent brigades or divisions, the gap being concealed from the enemy by troops temporarily called up from the second line. When the guns move to the front for action, other troops should

not be formed behind them, as they would suffer from the enemy's fire directed against the batteries. When guns are posted in front of a line of infantry, the infantry companies which extend behind them should form in column on the other companies of the battalion to the rear of the right and left flanks of the guns; when these retire through the interval so established, the line can be re-formed in a moment. But as a general rule guns should not mask infantry, but should be in front of their own proper intervals between brigades or divisions; as otherwise, when the infantry is called on to advance the guns must cease firing, unless the ground slopes so steeply to the front as to enable them safely to fire over the heads of the former.

The division is the unit of organisation of an army: it is complete within itself; and even when occupying a place in an extended line composed of many such units, the distribution of each division must fulfil all the requirements of a good military position. Its flanks are secured by the troops to right and left, and its proper batteries are distributed so as to aid its action in the most effectual manner. The fire of those batteries should cross in front of the centre of the division: if both flanks are equally strong, the guns may be equally divided between the flanks; but in the case where one flank is strong and the other weak, three-fourths of the guns should be placed at the point where they will be most secure, that is on the strong flank, the remainder being placed at the more exposed point.

But artillery must always have its flanks supported in some manner. If we suppose the case of an isolated division drawn up in line of battle on a plain, the left flank resting on a river, and the other unprotected or *en l'air* as the French appropriately term it, then while

three-fourths of the guns are on the left, the remainder should be placed between the first and second battalions on the right flank. If there is a cavalry force with the division, it should be in support of that flank; if not, the flank battalion should be formed in column, and that part further strengthened by posting another battalion in column in echelon to the rear, unless the enemy is similarly unprovided with cavalry; in which case the line formation is best, as least exposed to fire.

In India during the mutiny, on some occasions when we had no cavalry and yet had to attack a superior force of Sepoys well provided with that arm, the guns advanced in the centre, having the infantry deployed on each side of them.

Cavalry will henceforward play but a very secondary part in a battle in comparison with the past, for its only power lies in the offensive, and it cannot act at all unless in motion, for the effect of the carbine in the hands of a cavalry soldier may be entirely disregarded: he can only use it to any purpose when he is dismounted; and then he is no longer a trooper, but a hybrid and inferior foot-soldier. Thus, whenever cavalry is unable to move freely in every direction, it becomes paralysed and useless. Its distribution in a defensive position must be prescribed very much by the nature of the ground. In general terms, it should be posted in rear of the weakest parts of the line to support them. If both flanks are unsupported, the cavalry may be divided equally between them. If one flank only is supported, it may be massed in rear of the unprotected flank. But, however much in need of support any point may be, cavalry can only be useful where the nature of the ground favours its action. And therefore the ground on which cavalry may be called on to act, whether in front, on the flanks, or in rear of a position,



should be carefully reconnoitred beforehand. It was from a neglect of this precaution that the 25th Dragoons were nearly destroyed at Talavera by coming in their charge upon a deep hollow way into which the greater number tumbled headlong.

Whatever service may be required of cavalry, it should never be exposed either to the view or fire of the enemy until the moment when it is required to act vigorously. But it is not easy to see how cavalry can hereafter be advantageously employed during an engagement in front of the line of battle, except for the purpose of a sudden dash at any body of the enemy's infantry which has been repulsed in an attack on the position. The principal force of this arm will always be kept in reserve, to be launched with effect at any body of the enemy which may have succeeded in piercing the defensive line, or to protect generally the flanks and rear of an army.

It remains now to consider the reserve, to the strength of which it has been already said that there is no limit so long as the general position is adequately defended.

It should be a miniature army, complete in itself, composed of all the three arms, and capable equally of offensive and defensive action. The infantry composing it should be not less than one-sixth of the whole infantry force. The guns should be as many as can possibly be spared from the line; of these a portion should be horse artillery to act with the cavalry, which last should comprise the larger part of that force present with the army.

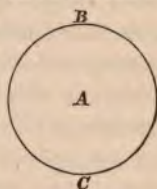
It is not necessary that the reserve should be kept in one body. It is impossible to lay down any but the general rule that it should be held in formidable masses, the number of separate masses being regulated by the extent of the position to be defended, and these being so placed that they shall be able in the shortest possible

time to reinforce any given point of that part of the line to which they may be specially attached.

Where the flanks, weak by nature, are not strengthened by art, they must be supported by bodies of troops composed of a mixture of the three arms. The best position for such a force employed for this purpose would be in rear of the flank to be guarded, and withdrawn from observation, in the case where the nature of the ground would immediately expose to view any movement of the enemy in that quarter. If the enemy should then threaten to attack, the supporting body should move to take up a position beyond the threatened flank, and to the rear, supposing the ground to admit of it: by this means it will threaten the flank of the enemy's attacking columns and oblige him to extend his movement further than he anticipated, thereby requiring him to make new dispositions, and gaining time for the assembling of additional troops from other quarters.

*On the Advantage of a Central Position.*

Suppose a force, A, of 20,000 men posted in the centre of a circle, and on opposite sides of the circumference two hostile armies, B and C, each of 20,000 men. If B and C could march so as to time their attack on A at the same moment, the latter would be overwhelmed. But if from any cause, arising from delayed despatches, or bad weather affecting roads and streams, B and C reached the position occupied by A on two successive days, they might be beaten in detail. In this case the central position would practically double the force of A. The argument here is—not that A of 20,000 has any advantage on account of its central position over one of the hostile bodies when they come to blows; they will simply be on equal terms



as to numbers, and the best generalship will win—but that B and C, having 40,000 men, which should render certain their success against the common enemy, yet by their faulty distribution place A almost on an equality with them, and render it possible for A to attack them singly without their being able to afford each other any assistance.

The advantage of A's position rests peculiarly in the power of intercepting communication between B and C, and at the same time of being perfectly informed of their movements. Thus, supposing B and C to have been able by a fortunate communication so to concert their advance that they would reach the position occupied by A at the same time, then the army A, having good information of their movements, can, by marching to meet one of the advancing enemies, not only render their simultaneous attack impossible, but may encounter and beat one of them and afterwards return to oppose the other.

It is only when a general remains timidly to receive battle in such a case that he is in danger of being attacked at the same time both in front and rear; for then the two hostile forces coming upon him from opposite directions may, either by accident or by communicating together, time their attacks simultaneously. But where a general is prepared to take the initiative boldly, *to be surrounded*, which is the bugbear of the timid general, is really an advantage; that is to say, it is more advantageous to have an enemy's force divided in two or more portions on different points of the compass, than to have them all united in front. A united army may be said to strike with one impulse. A divided army *may* possibly strike with one impulse; and if it do, the simultaneous action of two or more parts of the same army on an enemy from different directions—in front, flank, and rear, for instance—will certainly be far more dangerous than a united attack in

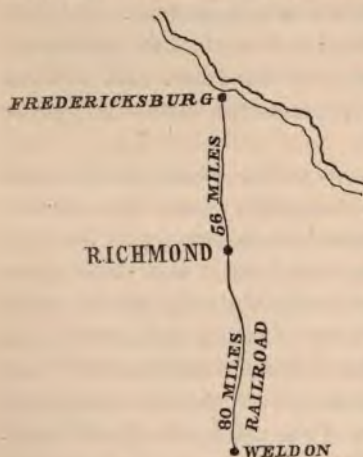


front. For two or more separated bodies to act with one impulse, however, is only possible where the enemy awaits attack. But with a skilful and energetic enemy it should be impossible. If such an one find himself with one hostile force in his front and another in his rear, he will take the initiative by marching against one of them, with the intention, if successful, of afterwards turning upon the other. The necessary condition to be observed is, that there must be at least a full day's march between him and that one of his opponents whom he does not attack in the first place; otherwise the latter might come up in his rear while actually engaged with his other opponent. It is true he may fail; but if he succeed in his attack on one enemy, he may afterwards turn and beat the other. All that can be said is that he greatly increases his chance of success by a bold initiative.

In 1810, when Massena was on the Zézere in Portugal, Soult was ordered to enter that country from Estremadura, to co-operate with the former by conforming to the plan which Massena was to send to him. But Wellington occupied a central position between the two; and he was so vigilant, and the partisans were so active, as to prevent all communication between the French marshals, and thus from their inability to concert operations each, being ignorant of the plans or position of the other, was afraid to act. All they required to drive the British out of Portugal was the knowledge of each other's plans and circumstances; but this they could not obtain! A better instance could not be given of the fault of operating on double exterior lines.

The Northern army is affording another example at the moment while these pages are being written, by their operations against Richmond, which in the diagram represents the central position held by the Confederates.

The principal Northern army under Burnside occupies a precarious position about Fredericksburg, with the Confederate intrenchments in front and the Rappahannock in their rear. Another expedition has just landed in North Carolina, and is supposed to be advancing to Weldon with the object of operating on Richmond from that place; a mode of proceeding which nothing could justify except a very large superiority of force on the part of the Northerners, which they do not possess. The Confederates holding Richmond, which is on the railroad connecting Fredericksburg with Weldon, fifty-six miles from the former place



and eighty from the latter, are fully informed of all the movements of the two hostile forces, while these last, although operating for the same object, have no means of communication with each other. By destroying the railroad to Weldon, the Confederates could gain three clear days for opposing and probably inflicting a serious defeat on Burnside, and could yet

return to Richmond before the force from Weldon could reach it. Or, by intrenching a strong position on the line of advance from Weldon, they might hold the force in that quarter at bay with a comparatively small force, while they should deal with Burnside at leisure.

The above examples are strategical, or have reference to the case where armies are supposed to be at a distance from each other, more or less considerable, in the theatre

of war. But the same reasoning applies to armies in the same relative situations as in the example, which are tactically opposed to each other on a field of battle.

For suppose A to be an army occupying a central position; B and C, corps of another army about to attack the first  $\frac{B}{A \atop C}$  on a field of battle from opposite directions. If B and C could so combine their attack as to fall upon A at identically the same moment, the latter would be taken at a disadvantage; for it disconcerts all but the bravest and most veteran troops to know that while they are fighting in front, an enemy is engaged with the other half of their army, and if successful will break in upon their rear. But practically the chances are all in favour of A, because he overlooks every movement of both his opponents, while B and C, however well they may have arranged their combined operation on paper, not being able actually to see each other's movements, are each ignorant of the situation and progress of the other from minute to minute. One of them may be delayed by unforeseen difficulties of ground, of which delay A may take advantage to attack the other with a superior force; or A may avail himself of some peculiarly strong ground on one flank, to hold one of his enemies in check there with a comparatively small force, while he directs a superior force against the other: indeed, in such a case it is rarely that some chance will not present itself to A for crippling the action of one of the hostile bodies to such an extent as to be able to turn the greater part of his attention and force against the remaining one.

The peculiar advantage to A is, that he overlooks the movements and progress of both assailants, and can regulate his action accordingly, while they act in ignorance of the movements and fortune of each other. Success or failure in war depends more upon correct information



than on any other element whatever,—on an accurate knowledge of the condition and movements of the enemy, as well as of the condition and movements of the different bodies which compose your own army. It is of little consequence that your force should be unable to cope with that of an enemy in actual fight, if by your confident bearing you can impose on him the belief that you are too strong to be successfully attacked. Military history is full of such examples; and it has been through want of information that powerful armies have often been paralysed, and States have been saved, by the delay imposed on a commander by a false belief in the strength of his adversary.

It is notorious that after the capture of Sebastopol, the confident bearing of the Russians on the Mackenzie heights imposed on the Allies, and prevented their assaulting a position which the former were prepared to abandon on the first serious attempt.

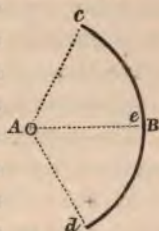
To take later examples. Every one remembers how the Confederate armies in America, first in front of Washington, afterwards at Corinth, delayed the advance of the Northerners for weeks by means of a bold front while they were evacuating their position at leisure.

To return to the case we have been considering. The example above given is of an extreme case for the purpose of clearer illustration. It is not to be supposed that a general would ever so divide his army into two bodies for the purpose of placing them on the flanks of the position to be assailed; if he should meditate an attack on both of his enemy's flanks, his centre would still face the enemy, and the attacks would be executed by his wings. But it is easy to draw from the foregoing remarks the lesson that an attack made in this way on both flanks of an enemy in position is only less objectionable in degree, and can only be justified by an overwhelming preponderance of force,

or by other circumstances altogether exceptional. Nothing that has been said, however, must be construed as militating against the rules which will be given hereafter relating to the danger to every military body of an attack in flank.\*

It is certain that the army A would be in great danger if attacked in flank suddenly by either of the bodies B, C; but by the hypothesis, A is aware of the movements of his opponents, and has ample time to make counter dispositions.

We now proceed to the case where an army (A) concentrated in a central position (o) is opposed to an enemy (B) united in one body, but extended over a long circumference, *ce d*. Suppose the armies equal in force, and the distances *oc*, *oe*, *od*, *ce*, *ed*, to be each of them five miles. Mathematically speaking, if A march against *e*, the centre of his enemy's line, there is no advantage on either side, because troops from *c* and *d* can reach that point as quickly as the army from *o*. Practically, however, A has a great advantage, because the initiative will have given him a start more or less considerable; the movement may not be discovered by B until the point *e* is nearly reached, in which case the centre of B would be hopelessly broken before the wings could arrive. Even though the



\* See page 185. The loss of the battle of Gettysburg by General Lee is principally attributable to his having attacked simultaneously both flanks of Meade's army, which rendered it impossible to reinforce Longstreet to the necessary extent. Longstreet obtained a decided advantage at first, but was unable to maintain it from want of numbers. Had he been backed by a second corps he would have succeeded, and success at that point would have been decisive, inasmuch as it would have intercepted Meade's retreat to Washington.

movements of A should be immediately detected, A would be able to reach *e* sooner than troops from *c* and *d*; because some time being allowed for uncertainty as to the point threatened, orders would only be sent to call up those troops after the intentions of A became declared, and the transmission of signals by field telegraph and the parade of the different divisions would consume a further time, sufficient, perhaps, for A to gain an important advantage. If, in the absence of telegraphs, the orders had to be carried by mounted officers, the loss of time would be evidently far more serious.

If, instead of attacking the centre, A should march against the flank *c*, for instance, that point would be reached before any of the troops composing the other wing of B could come up, and the battle would be fought with the whole force of A against one-half of B. It is not of course to be supposed that A would leave his position at *o* entirely unguarded; but it would be sufficient to leave there only such a force as could maintain it against a sudden and partial attack.

The foregoing remarks are illustrated by McClellan's position in front of Richmond, and by the attacks made on it by the Confederates in June 1862. The general conditions were very similar to those of the supposed case.

Soult's position in front of Bayonne in December 1813,\* is an excellent example of the advantage of a central position.

*Why an Angle must always be Weak.*

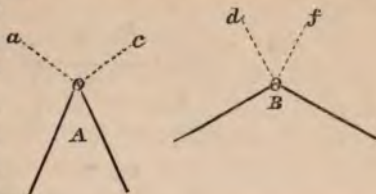
The point where two lines meet in an angle must always be weak for defence. This truth is recognised as one of the leading principles of the science of fortification where the lines which meet in an angle are represented by ram-

\* See p. 112.



parts or parapets, because there must always be a certain space, more or less great in proportion to the greater or smaller acuteness of the angle, which is undefended by the direct fire of the lines.

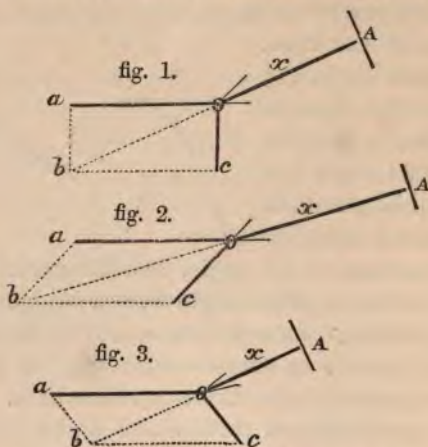
In the acute angle (A) the undefended space is shown by the angle  $a o c$ ; in the obtuse angle (B)  $d o f$  represents that space, which diminishes



with the increase of the angle, and disappears altogether when the two arms of the angle form a straight line. The same applies to lines formed by troops, whose fire and general resistance can only be effective when they act perpendicularly, or nearly so, to the direction of the lines. But there is another mathematical truth which applies to the case of troops—viz., that where two lines representing mechanical forces meet in a point, the single line or force which is capable of counteracting them, called their *equivalent*, is always less than the sum of the two lines; and the direction of this equivalent is that of the diagonal produced of the parallelogram supposed to be formed on these two lines, but acting in a contrary sense.

In the succeeding diagram, the equivalent of the two lines  $a o, c o$ , representing forces, is shown by the line  $x$ , acting in a contrary direction and equal to the diagonal  $b o$ , which is evidently less than  $a o$  and  $o c$  together. It will be observed that the equivalent required to counteract the two forces varies in magnitude inversely with the angle  $o$ ; that is to say, the equivalent increases in magnitude as the angle diminishes (fig. 2), and diminishes as the angle increases (fig. 3). And this is the reverse of the law which has been above stated, relating to the fire of two lines of troops, which constantly increases in effect with the angle at which

they are disposed. This discrepancy arises from the fact, that whereas the two forces  $a$   $o$ ,  $o$   $c$ , are supposed to act by



a push in the direction of their length, in consequence of which their united power increases as the angle between them diminishes: two lines of troops, on the contrary, cannot act at all in the direction of their length, but only perpendicularly to their length, and therefore their power of resistance becomes constantly greater with the angle at which they are disposed. Thus, although the general law relating to the equivalent of two forces meeting in an angle does apply to troops, the law which regulates its variation in the case of the latter is the converse of the mechanical law of forces. In other words, the equivalent required to counteract two lines of troops meeting in an angle becomes less or greater in direct proportion to the angle.

To the above disadvantages of an angle are to be added those which are peculiar to a body of troops attacked in flank. \* It is evident that an enemy's line formed at  $\Delta$ ,

\* See remarks on flank attack, p. 185.

and advancing by the direction  $x$ , will take both the lines  $a o, o c$ , in flank obliquely; the fire of every man of  $A$ , being perpendicular to the general front, will take effect somewhere on the lines  $a o, o c$ ; while the effective fire of these last will be limited to the few files on each side of the angle. And when the two bodies come into collision, the offensive action of  $A$  will be perpendicular to its general front,—that is, the most advantageous possible; while the resistance of the other two lines must be weak in proportion to their obliquity.

There is yet another serious evil attaching to an angle presented by a line on a field of battle, viz., that the enemy may place guns to enfilade one or both of the faces.

It is therefore necessary, where circumstances render such a formation unavoidable, to strengthen the angle as much as possible on the same principles as are observed in fortification.

Either let the angle be covered by ground inaccessible to the enemy by nature, or rendered so by art—by the construction of works or other obstacles; or let a good flanking defence on both sides be provided for the salient, by means of troops simply, or by troops covered by works.

Never neglect, if in any way possible, to defilade the face or faces of the angle whose direction is towards the enemy.

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To sum up the foregoing remarks of this chapter, it must suffice to say generally that in fighting a defensive battle—that is, in receiving the attack of an enemy in a position chosen for that purpose, since the case supposes the initiative to rest with the enemy—a general cannot decide how to act until he feels certain of his adversary's object; although a great general will have so taken his measures, and occupied his ground, as to force the enemy



to choose for attack the very point which is most favourable for the defenders. After the engagement is commenced, therefore, he will watch calmly the various events along the front of battle: he will not hastily conclude that a point which is shaken is in danger of being lost, and with it the fortune of the day; he will be in no hurry to despatch reinforcements to his lieutenants merely because they ask for them pressingly, knowing that they will often imagine the whole contest to be comprised within the limited sphere of their own action: neither will he be induced by a partial success, at a comparatively unimportant part of his line, to magnify it into a certain promise of victory, and engage his reserves too soon; for we may conceive the enemy to have been simultaneously successful in another more important quarter, which might for instance lay open the line of retreat—in which case, notwithstanding the advantages he may have gained elsewhere, he must relinquish all to hasten to the succour of the one point where his safety or ruin may be determined: he will watch coolly for a favourable opportunity of himself taking the offensive, and when he conceives the proper moment to have arrived, he will then, and not till then, heap upon the decisive point battalion after battalion, battery after battery, and squadron after squadron.

The most signal overthrow of modern days, Waterloo, was inflicted by a general who fought a purely defensive battle during the whole day, and only took the offensive in the one final charge which swept away the French army. Yet it must be remembered that the total destruction of that army was due only to the pursuit; and though it must appear a certainty to all (except Frenchmen) who study the matter, that Wellington would have repulsed the attack on his position with great loss without the aid of the Prussians, it must be admitted that without their ap-

pearance there would have been no rout. The French might have reoccupied their original position for the night, and resumed the attack next day, for Wellington's troops were far too exhausted to pursue. But the fresh Prussian divisions were acting against the flank and rear of the French, while the British infantry was pressing them in front. That combination it was that produced the cry of 'Sauve qui peut!' for the French soldier is too good a tactician to fight a losing battle well, especially when he sees his retreat likely to be cut off.

It would appear, judging from actual experience, that generals who have fought defensive battles, though decidedly victorious, have not usually followed up their success by a vigorous pursuit. All the Peninsular battles up to Vittoria were defensive battles, and in not one of them did Wellington inflict any loss on the enemy in a subsequent pursuit: indeed, a pursuit never was attempted. Even at Vittoria, which was a signally successful offensive battle, although he captured the whole material of the enemy's army, the troops got off safely: moreover, no pursuit was undertaken nor was one required to capture the stores, baggage, and treasure—they were simply a present made to him by Joseph's incapacity. During the whole of Wellington's campaigns, indeed, there is not a single instance of his inflicting any great loss on a retreating enemy. There was a fair opportunity of doing so, to all appearance, after Orthes; but for some reason or other it was not seized upon. What are we to conclude from this? Probably that in most other cases, as at Waterloo, the British were too much cut up and exhausted to pursue. It is to be borne in mind that it has been the usual fate of the British soldier to act with allies who, at least in the Peninsular war, threw upon him the brunt of every battle: the consequence was, that though invariably victorious, the

British troops were so roughly handled in maintaining the defensive, that when the enemy desisted from his attack, usually at nightfall, they were too much reduced and exhausted to follow him.

Abstractedly speaking, it might be expected that an army whose duty has been limited to holding its ground merely, and to repulsing the attacks directed against its position, would, if finally victorious, be in better condition to pursue the beaten enemy with vigour, than one which had been engaged in continuously assaulting an enemy's position during the whole of the day, however decided the success it might obtain at the end. Both the physical exhaustion of the troops and the confusion of their masses might be expected to be greater in the last case than the first, yet in practice the result would appear to be the other way; and it will be found that it is those generals who have taken the initiative, and have delivered battle in place of receiving it, who have alone inflicted any signal damage on the enemy in retreat; and the reason for this is to be sought among moral causes.

#### *Examples to the preceding Chapter.*

The subject of the preceding chapter was divided into the following heads, viz.:

1. On Lines of Retreat.
2. On Communications of a Battle-field.
3. On Tactical Points.
4. On the General Form of a Position.
5. On the Numbers of Troops required to occupy any Position.
6. On Natural Aids.
7. On Artificial Aids.
8. On the Disposition of the Defensive Force.
9. On the Distribution of the Three Arms.



The following examples, drawn from positions actually occupied and defended against an enemy, will serve to illustrate the above points :—

When Wellington was besieging the Salamanca forts, he occupied, in order to cover the siege, the position of San Christoval.

The position was about four miles long, convex towards the enemy, and was occupied by about 35,000 men, giving an average of nearly 9,000 men to a mile. The lateral communications in rear of the line were excellent, being along the summit of the broad and even hill which formed the position.

For retreat, five roads converged from behind the flanks and centre on Salamanca, which was the point to be covered—or, in technical language, the immediate pivot of operations.

The approach of the enemy, and the lateral communication of his columns in advancing, were impeded by, 1st, the ascent of the hill which in front was steep; 2nd, by three villages at the foot of the slope in front of the right, centre, and left, which were occupied as advanced posts; 3rd, by hollow roads and stone enclosures belonging to the villages, with which the slope of the hill was tangled.

The right flank was covered by the Tormes, and was strengthened by a village a little in rear, between that flank and the river. The left was on low ground, where, however, there was a small stream bordered by a marshy flat; the left flank was further strengthened by two villages in rear, one behind the other, which, if occupied, would oblige the enemy to make a very long *détour* before he could turn that flank.

The infantry, guns, and heavy cavalry were disposed along the summit of the mountain, which completely com-

manded the country for several miles; the light cavalry was posted in the low ground on the left, to guard the interval between the termination of the hill and the marshy stream.

It would be difficult to find a position which fulfils all the required conditions more completely.

At *Salamanca*, the position in which Wellington awaited the development of Marmont's design was rather more than two miles in length, occupied by 46,000 men and 60 guns, thus giving an average of about 23,000 men to the mile.

It was on nearly a straight line (A B in the diagram).

The lateral communications in rear were free and unimpeded.

The line of retreat was by the Ciudad Rodrigo road leading to the front of the right flank, and has been already indicated as a very unfavourable direction, and exposed to the enemy.

The approach to the position from the front, though sloping upwards, was easy; but the relative situations of the two armies were such, that in order to form a line



parallel to the position, the French must make a flank march along the front, exposing the right flank of their

column of march; on the other hand the Allied line was in the direction of the French advance, and consequently the left flank of the Allied line was exposed to attack.

But the left was protected from this danger by the strong and strongly-occupied rocky hill called the English Arapiles (*c*), as well as by the Arapiles village (*d*). The right flank was strengthened by the wood and village of Aldea Tejada (*e*).

The 3rd division on the right, the Portuguese and Spanish infantry and the heavy cavalry in the centre, and the 4th division on the left, occupied the elevated ground which extended between the wood (*e*) and village (*d*). The latter was occupied by the light companies of the Guards; and the 5th, 6th, and 7th divisions, gathered in one mass on the rear slope of the hill (*c*), closed and protected the line. The Portuguese cavalry was posted on the extreme right in front of the wood (*e*). The reserve (*h*), consisting of the 1st and light divisions, were in rear of the hill (*c*), and could thus succour that, the most important point of the whole line, if required, at the same time that they observed and held in check Foy's French division (*h*), which threatened the left flank from some high ground in that quarter.

Here let it be observed that the general front was only held by one line of troops, because the circumstances required a disproportionately large force on the extreme left: hence it arose that three divisions were massed for the defence of the hill (*c*), and that the reserve was besides composed of more than one-fourth of the whole army. It was imperative that the left should be strong, because it was nearest the enemy; the other parts of the line could afford to be weak in proportion to their distance from the enemy.



But the above disposition was only made by Wellington in the first instance because he feared the possibility of an attack on his left flank, for Marmont might have formed his army across that flank; but no sooner did the French marshal discover his rash intention of moving across the front of the Allied position, than Wellington altered his arrangements on the moment. The three divisions were brought down from the hill (*c*) into the plain, and were thus disposed: The 5th division took the place of the Spanish infantry, between the 4th division and Bradford's Portuguese. The 6th and 7th divisions, having on their right Anson's light cavalry, and beyond that again, the Spanish infantry withdrawn from the first line, formed a second line about 400 yards in rear of the first. The reserve was reinforced by Pack's Portuguese brigade.

These new dispositions were made by Wellington to give effect to the stroke he was about to deliver against Marmont. His intention was to attack the head of the French columns, which were then marching along the front of his position, by wheeling up the 3rd division on his extreme right across their line of march, while the remainder of the first line with the greater part of the cavalry advanced against the right flank of their column of march; but as the 4th division, which was on the extreme left, would in this forward movement expose its flank to the enemy's troops stationed on the French Arapiles (*k*), Pack's brigade from the reserve was ordered to assail that hill so soon as the left of the British line should pass it. The above was the plan which was executed with such remarkable success.

The Allied position at *Talavera* was on a straight line two miles long, occupied by nearly 53,000 men and 100 guns. Of these 34,000 and 70 guns were Spanish; the

rest were British and Germans. These numbers gave an average of 26,500 men to a mile.

The line of retreat was by two roads leading from the rear of the right wing, parallel to each other and to the Tagus, which protected the right.

The lateral communications in rear of the line were excellent.

The natural and artificial aids to the strength of the position were as follows:—The Tagus, sweeping close past the right, protected the flank and rear; the left was on a steep isolated hill (A). The ground from the foot of this



hill to the Tagus was level, with the exception of a mound at B, on which there was a redoubt, the fire from which flanked the centre and right. A large convent (C) strengthened the rear, some ditches and mud-walls covered the front, of the extreme right. There was also a redoubt in front of the convent which crossed its fire with that of redoubt B; and these two redoubts were connected by a breastwork having abattis along the front. The greater part of the left half of the position was covered in front by a watercourse which, taking its rise some distance to

the left of the redoubt (B), gradually deepened as it passed the left and became a wide chasm in the valley beyond. Some distance in rear of this chasm was another formidable chasm (D), which broke out from the outer slope of the hill (A), and ran far into the valley on the left. The hill (A) took a considerable turn to the rear, and was separated from a range of mountains running parallel to the Tagus by a deep and rugged valley less than half a mile wide.

In rear of the right, and still further strengthening that flank, was the town of Talavera; and to the left rear of the town was a large house in an enclosed wood (E), well placed, in case of defeat, to cover a retreat by the two roads already indicated. The approach of the enemy to the position, except in the centre, was everywhere difficult; on the right it was impossible.

The disposition of the defensive force was as follows:—

The Spaniards were on the right, and occupied that part of the line extending from the Tagus to the redoubt and rising ground (B). Although this was little more than one-third of the position, it will be noted that it was held by about two-thirds of the available force, the English general having made this arrangement because he knew from former experience that the Spanish troops were not to be depended on. So surely was he convinced of their worthlessness, that he covered the whole of their front from right to left with a continuous parapet terminated at either flank by a redoubt, thus rendering their ground, already strong, practically impregnable. This measure, while it insured the firmness of the Spaniards, had the further advantage of protecting the line of retreat, thereby fulfilling the rule which requires that those parts of a position which cover the line of retreat shall be of especial strength.



Next to the Spaniards stood Campbell's British division in two lines; next, Sherbrooke's division in one line, having one brigade of Mackenzie's division in second line; next came the German Legion in one line, with their left resting on the side of the hill (A). Mackenzie's remaining brigade prolonged the line along the crest of the hill; and Hill's division, following in its formation the crest of the hill as it trended towards the rear, closed the whole front in that quarter.

The British cavalry, with the exception of one brigade posted in rear of the redoubt (B), was placed in the valley behind and beyond the left flank; behind, also, the chasm (D). One division of Spanish cavalry was in rear of the centre; the remainder was behind the Spanish infantry on the right.

The English guns were for the most part collected on the hill (A), whence they had to maintain a very unequal contest with the superior French artillery which was massed on another isolated hill (H) within easy range. The remainder of the English guns were disposed along the front between the hill (A) and the nearest redoubt; the 70 Spanish pieces were on their own portion of the line.

It will be remarked that nothing is said of any infantry reserve; and in truth there was none; for when the centre was hard pressed, the English general was obliged to bring down some troops from the hill on the left to reinforce it. But there was a strong cavalry reserve, numerically speaking, of Spanish horse posted conveniently near to the only weak portion of the line—viz., that part on the left of the redoubt (B) which was not covered by the watercourse. That part, indeed, was the only one which the enemy could hope to attack with any prospect of success; and which he did attack, and very nearly with a successful result. The

hill on the left was also assailed fiercely and repeatedly, but no impression could be made there.

The position of *Albuera* was nearly four miles long, occupied by 30,000 infantry, 2,000 cavalry, and 38 guns: of the infantry only 7,000 were British. These numbers give an average of about 8,000 men to the mile.

The *Albuera* river ran along the whole front, and a smaller stream, the *Aroya*, along the rear and parallel to the first. The ridge on which the line was formed sloped both ways to these rivers, which were everywhere fordable. The ascent from the front was easy, being everywhere practicable for guns and cavalry.

Beresford's object was to cover the siege of Badajos; that of Soult was to raise it.

Two roads led from the position to the rear: the right-hand road (in the diagram) to Badajos on the *Guadiana*; the left to *Juramenha* on the same river. If defeated, the latter was the road by which the Allies must retreat across the *Guadiana*, over which river they possessed a bridge at *Juramenha*. They could not evidently cross at Badajos, in the face of a hostile garrison, and with Soult's victorious army in their rear. This line of retreat was well covered by the position, and the lateral communications were everywhere easy for all arms.

In this position there were two important points:—*First*, a hill on the right ( $\Delta$ ), which terminated and dominated the whole ridge, and which, at the same time trending backwards towards the *Aroya*, looked into the rear of the line of battle. It is evident that if a powerful mass of French troops could gain a footing there, they might roll up the Allied army on its centre, push it into the *Aroya* valley, and seize the *Juramenha* road, thus cutting off retreat and affording opportunity to the superior French

cavalry to complete the victory. — *Second*, a hill in the centre (B) rising above the general summit of the ridge,



and commanding the Juramenha road, which ran immediately beneath. If the enemy could penetrate there and obtain possession of that hill, he might separate the Allies into two parts and seize the line of retreat, thereby cutting off from it at least one-half of their army.

Thus, either hill (A or B) would become the decisive tactical point, or key of the position, according as the enemy made his main attack on the right flank or on the centre.

But there was a third hill, and a very important one (c), about a cannon-shot in front of A, and separated from it by the Albuera stream, which, not being occupied in observation as it should have been, enabled Soult to mass the greater part of his force behind it at K, unknown to Beresford, at the distance of only ten minutes' march from the hill A, for the purpose of attacking that flank. It is thus apparent that the last-named hill was, under actual circumstances, the decisive point of the whole.

Immediately in front of the centre, and strengthening that part of the line, was the village and bridge of Albuera (*d*).



Beresford's first disposition was as follows :—

Expecting to be attacked in the centre, he placed the 2nd British division in one line on the hill B, having the 4th division, formed in columns, in second line. A battery posted on the slope of the hill commanded the bridge of Albuera, while the village itself was occupied by Alten's German brigade. On the left of the 2nd division the Portuguese infantry was formed in two lines; and the Spaniards held the ground extending from the 2nd division to the extreme right of the position. A few squadrons of Portuguese cavalry were in front of the left wing, but the principal strength of that arm was behind the centre.

Later, so soon as it was evident that the principal attack was directed against his right, Beresford made the following alterations :—

The 2nd division was sent from B to support the Spaniards at A. The Portuguese infantry took the ground vacated by the 2nd division, detaching one brigade to support the Germans in the village of Albuera, against which the French directed a secondary attack.

One regiment of light cavalry was posted near the river above the bridge.

The 4th division, the rest of the cavalry, and the horse artillery, moved down the reverse slope, crossed the Aroya, and took post, the horsemen and guns on a small plain behind that stream—the infantry, in line, in echelon to the rear of their left (R). This force composed of the three arms could thus protect the rear, at the same time that it formed a reserve within reach of the decisive point. And, in effect, it was the action of this reserve that saved the battle.

These dispositions were excellent; the fault lay in their not having been sooner adopted—a fault resulting from the primary and paramount error of having allowed Soult to



Wellington's first position extended from the village of Fuentes Onoro (*A*), on the right, to *B* on the left, a distance of five miles, which gave an average of only 6,500 men to the mile. But this extension was rendered less dangerous than it otherwise would have been by the *Duas Casas* river, which flowing in a deep ravine covered the whole front.

All the roads, *a*, *b*, *c*, *d*, and *e*, were available for the French advance; for they all converged on Ciudad Rodrigo in their rear, which was the pivot of Massena's operations. The lateral roads connecting these must also be noticed, as giving the French great facilities for concentrating at any point along the Allied front: they enabled the French general simultaneously to menace several points distant from one another, and to concentrate rapidly at the one point which he might choose for serious attack.

Wellington's shortest line of retreat to his base was by the road *g*, leading from *A* across the Coa river at *D*; but all the other roads, *f*, *h*, *k*, joined the first at points more or less distant from the Coa; and the danger to be dreaded was that Massena, while holding the Allies in check with an equal force, might still detach 8,000 infantry and 4,000 cavalry by some one of these circuitous roads to get into their rear. Wellington, therefore, in the first place, posted one division at *B* to cover Almeida, two divisions at *C* to defend the bridge there and cover Almeida from that direction, and concentrated the remainder—viz. three divisions with the cavalry about *A*, having the village, which commanded the passage of the river by a bridge at that point, strongly occupied.

A partial attack made by the French, before their whole force had come up, on the village (*A*) was repulsed. On the following day, Massena, having arrived with the rest of his army, showed a disposition to turn the Allies by their right in the direction of the roads *h* and *k*; on which



Wellington extended his right to the hill (E), thereby holding a front of seven miles, with an average of less than 5,000 men to a mile; while the ground between A and E was a plain, perfectly suited to the action of cavalry, in which arm the French outnumbered him in the proportion of four to one.

The Allied right being vigorously attacked by a very superior force, Wellington sensible of his error again drew in his right, but with great difficulty and danger, in face of the whole French cavalry supported by two of their infantry divisions, and drew up his right on a new front at right angles to the general line, along the crest of the hill extending between A and the Turones river. The new position thus occupied is represented by B A F. By this measure he abandoned the roads *h* and *k* to the enemy, retaining for the retreat of his right wing only the road *g*; and as the direction of this last was unfavourable since it led in the prolongation of that part of his front and was therefore exposed to be intercepted by the enemy, he posted one division supported by his cavalry at H to protect that road as well as his right flank.

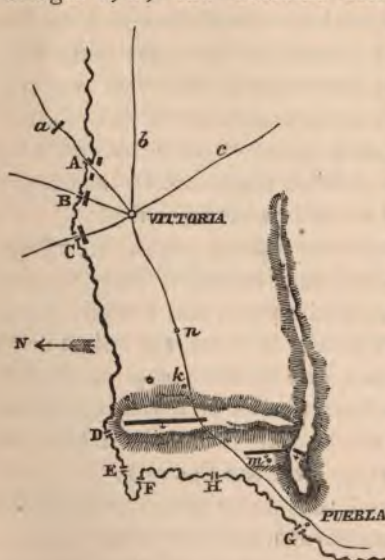
While these movements were taking place, the village (A) was constantly attacked and defended with varying fortune: it was, however, maintained, and happily it was so; for if the French had broken in there, the Allied army would have been cut in two, and all the troops on the left of that place would have been thrown on a very circuitous line of retreat, which would have enabled Massena to intercept them by the bridge over the Coa at D.

Here it will be observed, that A was the pivot on which all the tactical movements turned, and it was the decisive tactical point of the position. But if Massena, leaving 10,000 men to face the points B, C, and A, had carried the rest of his force across the Turones round in the direction

He, the Allies could hardly have escaped a great disaster. That he did not do so is attributable, partly to disgust at being superseded by Marmont at this juncture, partly to jealousy and insubordination among his generals of division; and he retired just at the moment when an advance seemed to promise a brilliant success.

The battle of *Vittoria* was fought between 80,000 of the Allies, commanded by Wellington, of whom 20,000 were Spanish, with 90 guns; and 60,000 French troops, under King Joseph, with 100 guns.

The course of the Zadora river covered the front of the French army; the extreme right of which was at the bridges B, C; the extreme left was at the defile of



Puebla. This line was no less than eight miles long, without counting the bend of the river, giving an average of rather less than 8,000 men to the mile. The French line of retreat was by the road of Durana (*a*), which, being in the direct prolongation of the general position, was unfavourable. There were six bridges along the course of river which covered their front, B, C, D, E, F, H; a seventh was at G, immediately below

the defile of Puebla, which protected the left flank. This defile was formed between the river and a range of

heights which, constituting the southern boundary of the basin of Vittoria, ran parallel to the Zadora in its westerly course, but was closely approached by the same river after it turned suddenly to the south.

The French communications were everywhere good along the whole front.

It has been said that the French line of retreat was by the road *a*; but it should have been rather said, that this was their only natural and safe retreat: first, because it was the direct communication with France; secondly, because, being the royal causeway, it alone of all the possible roads open to the French could suffice for the retreat of such an encumbered army. Other roads there were, leading from Vittoria to Pampeluna (*b*) and to Estella (*c*), by the first of which the French did in the sequel effect their retreat; but these were impassable for the immense trains which accompanied the troops. King Joseph's dispositions were as follows:—

A strong infantry brigade was pushed forward to *a*, to observe the royal causeway, and to protect the bridge *A*; for as the Allies were behind the hills forming the northern boundary of the basin of Vittoria, and as their line was parallel to that of the French, it is evident that by prolonging their left they could seize upon that route.

Reille's corps was intrusted with the defence of the bridges *B* and *C*, and consequently with the preservation of the line of retreat in that quarter; because if the Allies could succeed in forcing the passage of these bridges, the whole of the French army on the left of Reille would have been cut off from that line. Reille's corps may thus be considered as forming the right of the whole.

The centre, distant from Reille six miles, was drawn up on a ridge of hills which stretched from the bridge *D* quite across to the Puebla mountain to which it formed



a spur; the centre extended from the river to the royal causeway at the village of Arinez (*k*); the left occupied some difficult ground immediately behind the village of Subijana (*m*), facing the Puebla defile, and having a brigade on the mountain above to protect the left flank. The centre and left were composed of Gazan's and D'Erlon's corps, in two lines, which may be considered as forming a distinct line of battle, having their retreat on Vittoria, their right covered by the river, their left by the Puebla mountain. Fifty guns were disposed along this front, pointing to the bridges *D*, *E*, *F*, *H*, by which and by the bridge and defile of Puebla only could the Allies approach this position. Two villages behind the right, one behind the centre, another in front of the left, strengthened these parts.

The principal mass of cavalry was, with a reserve of infantry and many guns, about the village *n*; and this force could succour either the line we have been describing, or Reille's corps if hard pressed at the bridges *B* and *C*.

The bridges *D*, *F*, and *H* were guarded by troops; but Joseph committed the great mistake of leaving the bridge *E* unguarded, as well as the defile of Puebla. For the light division having crossed at *E* without opposition, established itself actually behind the French advanced post at *F*, and within a few hundred yards of their line of battle; while Hill's corps was allowed to thread the defile of Puebla without molestation, and to engage the troops posted on the Puebla mountain and behind the village *m* on equal terms. But there were other faults; for neither of the bridges *F*, *H*, was defensible, since the French side was commanded by the opposite bank, where also there were woods coming close down to the river, affording shelter to the assailants. It is evident, therefore, that the three bridges *E*, *F*, *H* should have been broken; while the bridge *D*

should have been strongly intrenched and preserved for the purpose of making an offensive movement against the flank of the Allied troops, while endeavouring to cross the river lower down, if such an opportunity should present itself.

But the truth is that the whole arrangement was essentially vicious, for the main front of battle was six miles distant from the bridges *b* and *c*; and although that front had been impregnable, its strength could have no influence on the issue, for the bridges *b* and *c* were the decisive point of the whole field, and their loss would have entailed the destruction of the army. So clearly, indeed, though too late, did Joseph perceive this, that the first sound of Reille's guns was the signal for commencing the retreat of his centre and left; and in all probability, the cannonade going on in their rear, and the possibility thereby indicated that their line of retreat might fall into the power of the enemy, seriously affected the steadiness with which the French troops faced the enemies who were pressing them in their front.

It has been said, that the bridge *f* was not defensible by the French on account of their side of the river being commanded by the opposite bank, which was, moreover, wooded so as to shelter the assailants. If these conditions had been reversed, the French would have done right to preserve that bridge, as well as bridge *e*; because a body of troops crossing suddenly at those points, could have acted against the flank and rear of the Allied columns, while engaged in forcing a passage of the river at *d* or *h*. This advantage would be afforded by the salient form of the loop on the sides of which the bridges *e*, *f*, were placed, pushing in as it were like a wedge between the assaulting columns, provided always that the ground on the side of the defenders commanded the opposite bank.

Without such a command, the defenders could not utilise the loop, as above supposed, because the assailants could evidently place guns or sharpshooters on each side of the neck of the loop, which would sweep the whole of the ground comprised within it. Indeed, Napier says that the light division, posted about the bridge *r*, was enabled by reason of the woods and broken ground to remain so close to the water, that their skirmishers could with ease have killed the French gunners of the advanced post at the same bridge within the loop.

The details of the fighting of this and the preceding examples must be looked for in Napier; the object of those here given being to illustrate the foregoing chapter on the occupation of defensive positions.



## CHAPTER VII.

## ON THE ATTACK OF A POSITION.

THE army which awaits attack in a chosen and prepared position has a great advantage, and one, as has been explained, which increases in the same ratio as the range and accuracy of fire-arms, whether great or small. Hitherto it has been considered, however, that the advantages attending the attack are greater than those attached to the 'defensive.' These are all derived from moral causes. What the French term the *élan* of the soldier is lost in a defensive attitude. Everyone knows how much easier it is, when the mind has been strung in anticipation of some great event, to do vigorously than to wait firmly. The power of doing the latter is unquestionably the highest and rarest quality, and one which a natural firmness of spirit improved by discipline can alone confer. It is the general himself, however, and his plans, which are the chief gainers from the adoption of the 'offensive.' The initiative in any military operation is, abstractedly speaking, a real advantage. The assailant forms his plan; his opponent's task is to divine and frustrate it. How many chances there are that the latter may be mistaken, and that on a field of battle he may make dispositions to counteract a supposed plan of his assailant which are inapplicable to the real plan, and even dangerous to the safety of his army! It is the attribute of the superior nature to take the lead,

and to oblige his adversary to follow it; and even where circumstances forbid this literally, a great general will accomplish it in principle. In reading the history of all great military leaders it will be observed that, whether acting on the offensive or the contrary, their superior genius always asserted its pre-eminence by prescribing to their opponents the course they should follow.

Two armies face each other. The assailant has formed his plan: he goes straight to his object; there is neither uncertainty nor hesitation. Though he endeavours to throw dust into the eyes of his opponent, and to mislead him by feints and manœuvres as to his serious intention, all his movements have one object clearly defined to himself. The defender, on the other hand, cannot at once divine where the blow is to be planted; he may lose time in hesitation, and at last perhaps guesses wrong and makes a false move.

The first object of a general who meditates an attack, is to become acquainted with the position of the enemy in all its features. In an open country, a tolerably correct judgment may be formed as to the posts the enemy has occupied in front, as well as of the nature of the ground which constitutes his main position. The approaches perpendicularly to the whole length of the defensive line must be carefully reconnoitred and studied, as well as the approaches to the extremities of the line from both flanks, with a view to determine the points against which an attack may be most advantageously directed, with reference only to the general configuration of the defensive position. In this examination, all features which are capable of affording cover to the assailants in advancing must be noted—those especially which would cover the deployment of the attacking columns sufficiently near to the enemy's main line to make that deployment judicious. It will, however, be

owing to oversight if such features as last supposed are not already occupied by the enemy as advanced posts ; and if any uncertainty remains as to the enemy's dispositions, demonstrations should be made generally along the front, to oblige him to show his hand ; especial care being taken not to excite his apprehensions for the safety of any particular point on which a real attack might profitably be made.

It would be an advantage to be noted, if the ground over which the assailants must pass to attack any particular point offers, from its nature, any protection to the flanks of the advancing columns.

On the other hand, it would be a decided disadvantage if the nature of the ground in the immediate front of any such point would oblige the assailants to approach it in column, or on a diminished front ; because the enemy would thereby obtain a superiority of fire, for which also the close order of the assailants would present a most favourable mark.

It may be said, generally, that all such features as would if undefended be likely to facilitate attack on any part of the defensive position in their rear, would, on the contrary, if occupied by the enemy, prove obstacles in the way of the attacking columns.

In the case where neither the eye nor armed demonstrations are able to inform a general sufficiently on the above points, it is the business of the officer intrusted with the intelligence department of the army to supply the necessary information. A knowledge of geology, however, will often be of great use in such a case, as enabling the possessor to pronounce confidently on the general nature of the slopes and variations of level of any ground from the data of its geological formation. It would, for example, be of material consequence to the assailants to know either



that the position which they design to attack, but do not see, must infallibly present smooth and easy undulations, or rugged and precipitous elevations. Yet, although geology may thus teach what is the general surface of the ground forming an enemy's position, good maps and good information are requisite to obtain a knowledge of the particular features it most imports to be acquainted with—such as the direction of the line of retreat, and the nature of the ground in its immediate vicinity, as well as about the flanks; the existence, or the contrary, of villages, woods, streams, lakes, &c. &c., in rear; as well as of any other physical features which would either strengthen the defence or give advantage to the attack.

If in his scheme of battle a general had only to consider what points of a position he could attack, in the cheapest and easiest manner possible to his own army, with the view to compel the enemy to retire, he would simply form his plan on a careful study of the enemy's *front*. He would select his point of attack on account of the facilities offered by the ground in front to support and protect his columns in advancing and deploying; and if his assault should be successful, the enemy might retire in good order, having inflicted perhaps a greater loss than he had sustained, to some equally strong position previously determined on. But an able general has always in view to inflict some crowning and disabling damage on his adversary: for this purpose he always strikes, where possible, at the line of retreat—a mode of action which requires that the *rear* of the enemy's position should be considered as well as the front. In this sense, it will depend on the locality and direction of the line of retreat, whether an attack should be made on either flank, or on some point between them. Thus, if that line leads to the rear from either flank, that flank will be selected for

attack—much more if it leads in the direction of the enemy's line of battle prolonged, as at Vittoria, or to the front, as was the case in Wellington's position at Salamanca. Or in general terms, that part of the enemy's position which immediately covers his line of retreat will be chosen for attack, supposing that actual circumstances render it possible or prudent to do so.

In forming a scheme of attack, a general must adopt a plan which shall combine at once the greatest possible damage to the enemy with the least possible loss to himself—a plan, however, which can only be an intelligent compromise between these two conditions; for the defenders will obviously strengthen those points which are the most important to their safety, and a greater price will therefore have to be paid by the assailants for the possession of these points than for others.

It should be needless to prescribe that where an army may be advancing in an unknown and close country, every step of the way should be cautiously felt, and one foot should not be planted until a secure stand is obtained for the other. It is rarely that a general would be required to attack a position with the nature of which he is entirely unacquainted; but should he find such a position in his front he need not be thereby absolutely deterred from making the attempt: yet he should remember that, although his justification for running such a risk would really be found in the necessity of the case, success is the only excuse which will be admitted by the world.

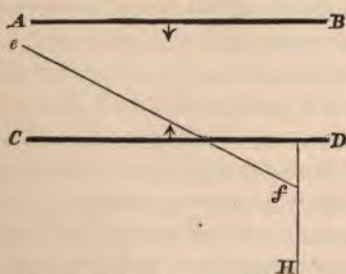
Having first carefully studied the enemy's position, with a view to determine the most advantageous point to attack, having regard to the enemy's position only, it still remains to determine whether that point will be the most advantageous considered with reference to the situation and circumstances of the assailant.

In an offensive operation, a general must always include in his calculations the possibility of failure, and the measures necessary to insure a methodical and orderly retreat in such a contingency. The locality and direction of the line of retreat, with reference to the front of his own army, will therefore materially influence the locality and direction of his attack. In general terms, his dispositions should be such that, if repulsed, the enemy may not be able to seize upon his line of retreat and cut from it the whole or a portion of his force.

If the line of retreat lead to the rear from a point near the centre of his line, that circumstance need exercise no influence on his choice of the point of attack.

But if it be attached to either flank, then his plan must include that circumstance among his data.

Supposing, for example, the enemy's position represented by  $AB$ ; your own line, you being the assailant, by  $CD$ ; and your line of retreat leads in the direction  $H$ . You design to attack the flank  $A$ . To do this, your army must assume the general formation  $ef$ , because the troops pushed forward from  $c$  must be supported methodically and



cohesively by the whole line.\* Now, it is evident that if this attempt be repulsed and the army obliged to retreat, the line  $H$  is exposed to the action of the enemy, who may seize it by throwing forward the wing  $B$ , and thus be able to cut off from it at least the left wing of your army; which is, by the hypothesis, retreating before a victorious enemy and pressed by his troops in pursuit. If you

\* See after, page 200.



reverse the case, however, and attack the flank B, it is plain that the formation necessary for that purpose will completely cover your line of retreat. In the first case, if your army, in order to attack A, makes a flank movement in that direction, the line H will be completely uncovered, and every part of the army C D will remove at every pace farther from that line. In the last supposed case, on the contrary, if you make a flank movement towards B, the line of retreat becomes better covered at every pace, and every part of C D on the left of H draws continually nearer to that line.

We may conclude, therefore, that in such a case, if there is a question of attacking one flank of the enemy rather than the other, the movement should take place from the flank to which is attached the line of retreat of the attacking force.

The same reasoning evidently applies in a stronger degree if the line of retreat of the attacking force should be in the prolongation of one of its flanks, instead of leading directly to the rear.

There are, however, no rules without their exceptions. Here the exception must be, in general terms, the existence of some obstacles in front of your line of retreat which would either altogether prevent the enemy from reaching it, or which would detain him so long that your own troops should be able to regain that line, supposing them to have left it uncovered, before the enemy's troops could reach it. As, for example, where a river running through a deep defile over which there are no bridges, may be supposed to run in front of the line H in the last diagram. The river here guards the line of retreat of itself, and you may consequently form your plans for the attack of any point in the enemy's position which may promise the greatest results.

If you find that a part of the enemy's front is covered by any natural obstacle difficult to surmount, over which he has preserved and fortified no points of passage—such as a river, marsh, or ravine—then you may consider such obstacle as *pro tanto* forming a protection to the corresponding part of your own line, and may safely draw from that part the greater portion of the troops otherwise necessary for its defence, to reinforce your attack on the accessible points of the enemy's position.

At the battle of Ramillies, the Tomb of Ottomond on the French right was marked by the eye of Marlborough as the decisive point of that field of battle. A marshy stream, difficult to cross, over which the French held no passages, separated their left from Marlborough's right. The English general therefore drew from that wing the whole of its second line to reinforce the attack which he made on the French right. Here the latter debarred themselves from the power of taking the offensive on their own left, and Marlborough availed himself of their neglect.

A similar instance is afforded by the battle of Ocana during the Peninsular war. In front of the Spanish left ran a deep ravine, which, although it prevented the French from attacking that part of the Spanish line, equally hindered the Spaniards there posted from attacking the French right. This circumstance would have been a great advantage to the Spaniards, if their general, depending on the ravine to cover his left wing, had left there only a small force so as to be in the greatest possible strength on those parts of his line which were accessible to attack. But he paralysed one-half of his army by shutting it in behind the ravine, where it did not fire a shot; while the French, on the other hand, having the initiative, availed themselves of the same obstacle simply to observe the Spanish left with a few

troops, while they directed their masses against the accessible part of their enemy's position.

In the case of which the two foregoing instances are examples, time is the element chiefly to be considered. It is simply necessary that the time required by the enemy to pass any obstacle such as is above supposed, and attack your line of retreat, or your weakened wing, shall be unmistakably greater than the time which would be required by your own troops to recover the line of retreat, or to reinforce the weakened wing.

From the above reasoning we may deduce the following corollary:—

Time being proportionate to distance, the refusal of one wing of an army, or its removal from the enemy, will have an analogous effect to that of a natural obstacle in protecting the retired wing, which may, therefore, be weakened in a similar ratio to reinforce that wing which is nearest the enemy. The object to observe is that, by reason of the distance, the enemy shall not be able to attack or turn the retired flank in as short a time as would be required by you either to reinforce that flank or to gain a decided advantage with the other. This was the principle on which Frederick the Great formed what is called his *oblique order* of battle, on which a good deal of confusing pedantry has been lavished by military writers. But, in truth, it is simply an application of the maxim which it has been endeavoured to elucidate in this and the foregoing chapter, viz. *Dispose your troops in such a manner as to defend the indecisive parts of your position with a smaller force than the enemy must oppose to it, so that you may be superior at the decisive point.* Here the term indecisive would apply either to any accidents of ground which of themselves confer strength where they occur, and which would place a small number of defenders on an equality with a supe-



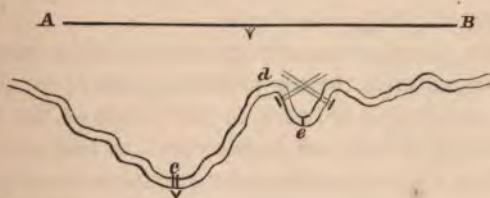
rior force of assailants, or to those parts of a line which, being refused, are thereby exempted from attack.

The end and aim of all military science, and the only principle which is of universal and arbitrary application in war, is, that *you shall be superior to the enemy at the decisive point and time*. All other rules and maxims only prescribe the *modus operandi* to effect that object, or the manner of applying that principle so as to inflict the greatest possible loss on an adversary. It is not the number of troops ranged in order of battle that decides a victory, but the number which a commander can put into vigorous action at the right place and right time. Superior skill in a general may remedy a great disparity of force, but the only manner in which his superior skill can be effectively displayed is in being superior to the enemy at the point where the battle is to be decided. Every military maxim, therefore, to be sound, must in spirit be reconcilable with this one principle, and must, indeed, be derived from it.

If superior to the enemy in numbers, it would not be in accordance with the above principle to disseminate your force by occupying a larger front than he; because you are about to attack some point in the enemy's line, and your extended front must render the concentration of troops at any such point difficult in proportion to the extension. Rather oppose him on an equal front, and hold your surplus troops in masses behind those portions of your own line with which you intend to attack.

The greatest of all obstacles in the way of an assailing force is an unfordable river which covers the front of a defensive position. Here the bridges and fords will of course be objects of chief attention, and it may be expected that those of them which have not been destroyed will be found strongly intrenched and guarded by the

enemy. If such is found to be the case, it will be for a general to consider whether success is most likely to be obtained by endeavouring to possess himself by force of these, the only avenues by which he can approach the enemy's position, or by the construction of new avenues in throwing pontoon or other improvised bridges over the stream at points on which the enemy has concentrated no defensive measures. The wisdom of attacking a bridge which is strongly intrenched can only be determined by the nature of the ground on both sides of the river; and enough has been said to elucidate the subject in the remarks on tactical points and advanced posts in the foregoing chapter, and on the battle of Vittoria in the examples to the same. In general, it may be considered that where an army possesses pontoons, it would be preferable to throw a bridge at some point where tactical advantage is combined with such a configuration of ground as may protect the construction of the bridge and the formation on the opposite bank of the troops destined to pass it. By this measure, if successfully accomplished, the intrenched bridges of the enemy will be turned, and must of necessity be abandoned.



In the diagram, *cde* is a river covering the front of a defensive army *A B*, which has intrenched and guards a bridge at *c* so strongly as to render an attack hazardous. Here *e* is a point which combines tactical advantage for

the assailants with a configuration of ground that will protect the construction of a bridge and the formation of their troops on the farther bank : tactical advantage, because their troops, after crossing at *e*, can take the defenders of the bridge *c* in reverse ; and a favourable configuration, because batteries and sharpshooters lining the sides of the re-entering loop at *e* will protect a clear space comprised within the loop on the opposite bank. It will not escape the notice of the reader, however, that these protecting batteries are themselves exposed to enfilade in the positions assigned to them, unless their flanks are covered by ground forming natural epaulements. It is evident that the point *d* would not be suitable for the assailants' bridge, unless the ground on the farther bank was such as to prevent the enemy from planting batteries to fire on the bridge itself, which they could do, if the ground was level, both from above and below. If particular accidents, however, rendered it judicious for the assailants to throw a bridge at *d*, the tactical advantage would be more complete evidently than by crossing at *e*. In either case the bridge *c* must be strongly masked, to prevent the enemy breaking out from thence to act against the flank or rear of the attacking columns in approaching, or crossing at, the points *d* or *e*.

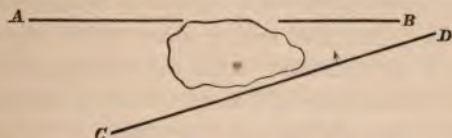
A river, even when everywhere fordable, may be a serious impediment to an attacking army ; in proof of which it needs only to refer to the battle of the Alma :\* and the value of such an impediment, as well as of every other which detains troops under fire, increases in the same ratio as the accuracy and destructive effect of fire-arms of all calibre.

Where a marsh, lake, or other large obstacle, constitutes or covers a portion of the defensive position, the disadvan-

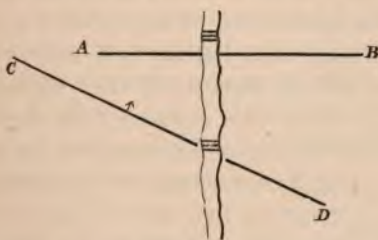
\* See page 240.



tage to the assailants has been indicated in the foregoing chapter. To counteract it there is only one course to pursue. Since the attacking army, if it advanced by both sides of the obstacle, would be cut in two and deprived of intercommunication, it should advance by one side only, keeping the troops on the other side refused so as to form



an oblique line, the communication between the several parts of which would be complete and constant. Thus, in the diagram, if A B represent the defensive position, then the general direction of the assailants would be represented by C D. The attacking wing D might be strongly reinforced at the expense of the retired wing C, which would be safe from attack by reason of its distance from the enemy, and thus the lake would be converted to the advantage of the assailants. It would be easy to enlarge further on the principle of which this is only one example, but it is probably sufficient to indicate so much.



The same reasoning applies to the case, likewise considered in the foregoing chapter, where a defensive position is cut perpendicularly by a stream or ravine. In this, as in the

last example, the assailants would naturally select for attack the weakest of the enemy's separated portions, providing a communication between their own separated portions by bridges similar to those of the defenders, constructed at such a distance as to be secure from a sudden attack.

Having now selected his point of attack on a comparison of the many chances arising from actual circumstances which must be embraced in the calculation, a few of which only have been here indicated, the general has next to consider the best method of execution.

An army which takes the offensive on a field of battle has greater need that the troops composing it shall be expert in manœuvring correctly and rapidly than those which compose the defensive force. The problem of the defensive general is merely to move masses of troops along the rear of his position from one point of the line to some other which is threatened by the enemy. The task of the attacking general, on the other hand, is to move masses of troops with the utmost possible rapidity and order from his own line to a certain point or to certain points in the defensive position. For, just as in mechanics the momentum of any body is compounded of its weight and velocity, so the momentum of all military bodies, or their effect on the issue of a battle, is a compound of their intrinsic force and the rapidity of their movement.

The intrinsic force of a military body depends on the excellence of its spirit, of its arms, of its practice with those arms, and on its correctness or cohesiveness of array. Of these items, the two last entirely, and all to a great extent, depend on drill and discipline. To bring up a large force by a rapid march to any point in perfect order and cohesiveness, requires the troops composing it to be perfectly drilled. But rapidity of movement in combi-

nation with orderly array can only be obtained by a severe course of bodily training engrafted on manœuvring drill; and this becomes daily of greater importance in proportion to the increasing range, accuracy, and destructive effect of fire-arms.

But it is one thing to speak in military parlance of *throwing a mass of troops on a particular point* to overwhelm an enemy—another to practise it! In practice, a mass of troops is not to be thrown as easily as a cricket-ball. It is not quite so easy to bring up several thousand men to the point where they are to act, in perfect order, so that they shall mutually support each other to the fullest extent possible, and just at the right moment. The difficulty increases, of course, with the distance, and varies with the nature of the ground they must pass over. It is a question of pace and time, as well as of drill. On a parade-ground such as Aldershot, the time may be calculated to a moment; but on fighting-ground with an enemy in front, it is a different matter. The time must depend on the state of the country, of the streams to be traversed, &c.; and the march may be over enclosed ground where the progress of even a single man would be impeded, and where a body of men must be very seriously delayed and disordered.\* It may be taken as an axiom, that to move 10,000 men several miles in an enemy's country, and to place them in perfect order at a given point in a precise time, requires a very just and careful arrangement, great experience, and above all a thorough acquaintance with the ground they must pass over.

\* See the Battle of the Alma, page 240.



*On the Rules which regulate the actual Collision of a  
Body of Troops.*

The military terms *strategy* and *tactics* are simply two different names given to the same science when applied to scales of different magnitude. There is no single rule applicable to the former which is not rigidly so to the latter. *Strategy* is merely the application of military principles to the case where two armies act against each other without the aids of visual information. *Tactics* is the application of the same principles to the movements of two bodies acting against each other with the aid of the knowledge acquired by ocular observation of each other's proceedings. But an additional element enters into the study of the latter branch of the science of war, which does not affect the former, viz., the actual personal collision of the two hostile bodies of men. It is therefore necessary, besides observing the general principles which are equally applicable to both, to establish the rules which must regulate that collision in such a manner as to obtain advantage from their application.

The basis of all tactical excellence is *drill*. Troops should be constantly practised in marching over steep and broken ground in line, and in executing changes of formation with accuracy and rapidity—of course with the utmost accuracy and rapidity it is possible to arrive at. Even over such ground a brigade may be brought to move in line with such *coherence* as to leave no intervals, and yet without overcrowding. This is a simple matter of battalion drill; the functions of the brigade staff being limited to preserving the correct general alignment, and the correct distance from the point of direction. But when several divisions are moving in line, the duties of the

staff officers become more important, and upon their correct fulfilment may depend the success or failure of an attack. The danger of leaving large intervals in a line advancing to attack is evident; for the enemy, awaiting the onset in compact formation, can thrust troops into the intervals and attack the assailants both in front and flank. The evils arising from overcrowding, which result from a faulty judgment of distance by staff officers, are probably even greater; in support of which view it is only necessary to refer to Kinglake's description of the battle of the Alma. But excellence in drill, although indispensable, is after all only mechanical; it only insures that troops shall be brought up to any point required, rapidly and in orderly formation: that is to say, the machine is placed in good working order at the point where it is to execute the inspirations of the directing intellect.

Of all the attacks to which a body of troops can be exposed, considered in the abstract merely with reference to their formation only, and without regard to the nature of their position, the least dangerous is an attack made in parallel order or directly on the front—the most dangerous, one made directly on the flank.

The truth of this proposition will be obvious on a little reflection; for the power of any man to resist a shock or pressure is evidently greater when it is exercised directly on his front, than it would be if exercised obliquely to his front: the difficulty of resistance increases with the obliquity of direction, and becomes much greater when the pressure is applied directly to his side. And what is true of one man, is true of any number of men collected together. Here is one cause arising from the mere mechanical laws of matter. But there are other causes, resulting from laws purely military, and in particular from that one leading principle which prescribes that success in war

depends on being superior to the enemy at the point of collision.

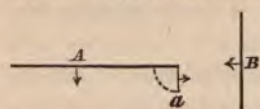
If we suppose the extreme case of one company formed in line being charged by another company in flank, where the flank file only has faced in the direction of the attack, it may be considered that the mass of the assailants come in contact with one file only of the standing company; for every man in the former can act directly to his front in attack, while only one file of the latter can so act in resistance.

But suppose a battalion in line (A) to be attacked by another line (B) which has previously established itself perpendicularly to the direction of A, on one of its flanks. Since the parallel order is the most favourable for receiving

an attack, the commander of A will endeavour to change his front so as to form a line parallel to B.

If B should be sufficiently distant to enable A to complete his change of front before the two bodies come in contact, no inconvenience will ensue. But if not, only a part of A will have assumed the parallel formation before collision: that part may be a section, a subdivision, a company, or a larger fraction (*a*), in proportion to the time available before the whole line (B) will come in contact with the section, subdivision, company, &c., overwhelming that fraction and the other portions of A in succession. Here it is evident that the disadvantage of A would diminish in proportion as the formation of B should approach more nearly the parallel order.

It will be observed that the advantage of B consists in the power to bring the mass of his force against successive fractions of the enemy, or of being superior at every successive point of collision.





If this reasoning is extended to divisions or to whole armies, it will be at once apparent why an army attacked in flank is in danger of destruction.

But to the above causes, derived from mechanical and military laws, must be added another, having at least as powerful an influence on the issue of a conflict, which results from moral considerations. There is no danger, however great and however real, which is not magnified by imagination when men are conscious of its existence but unable to perceive its extent. And the attack of an enemy on the flank of a line, or on the head of a column which is analogous in principle, is a case in which the imaginative faculty is peculiarly called forth in the men composing the defensive force. They hear the turmoil; they know it is charged with threatening consequences to themselves; they magnify a danger which they do not see and which they feel unprepared effectually to resist, and their minds become excited to that pitch of apprehension when the occurrence of a small event may, among any but the very steadiest troops, create a ruinous panic.

It has been said that the attack on the head of a column is analogous to that on the flank of a line, because a line in charging the head of a column comes in contact with the leading fraction only of the latter, be that fraction a company, subdivision, or section; or if time has been given to commence a deployment, with those fractions only which have completed it at the moment of collision; and these will evidently be hurled back by the superior force of the line on the remaining fractions, while in the act of marching to a flank to deploy in their turn.

It is not merely the contact of a bayonet-charge that is signified in the foregoing reasoning by the term *collision*. Troops come into collision when they are able to fire on

one another with effect; and the superiority of fire possessed by a line over the fractions of any other line which may have formed up to meet a flank attack, or over the head of a column, is more effective than the superiority in men for a rush; for if we suppose 400 men disposed in line to encounter 400 men formed in column the divisions of which number 25 files or 50 men, then each of the 400 muskets of the line will, by the convergence of their fire, and by wheeling up their outward divisions on both flanks, have a good chance of hitting one among the mass of 400 men in column, while the column can only reply by the fire of its leading division and of the few men on the flanks of the rear divisions—that is to say, by the fire of about 80 muskets. The increased penetrating force of the rifle-muskets now in use, which can send a ball through several men standing in the same line of fire, greatly increases the advantages, already very decided, of the line over the column formation for collision.

Hence arises the necessity of deploying all columns of attack while still beyond the reach of any very damaging fire from the troops they are about to assail. An attempted deployment within reach of a hostile line must surely be defeated; for the column can only oppose to the fire of the whole line that of its leading division; and the divisions in rear, as they successively become unmasked, are exposed to a powerful fire while still marching to a flank, and confusion must ensue.

It has been held by many, particularly among Continental armies who have made a practice of attacking in column, that the leading men of the column derive a confidence from the feeling that they are backed by a mass in their rear, which they would not possess if formed in a thin two-deep line. This belief was the origin of the three and four deep lines which was until lately the usual fighting

formation of Continental armies. It is very recently, since the Crimean war, that the French have generally adopted the two-deep formation. The supposed advantages are certainly, however, when a column is opposed to resolute troops formed in line, more than counterbalanced by the defects—by the tendency to panic in the body of the column, and by the inability of the greater part of the men composing it either to cooperate in attack or to defend themselves effectually. The following observations by the historian of the Peninsular War may be taken as a good summary of the subject. Speaking of the battle of Vimiero—

‘The rapidity with which the French soldiers rallied and recovered their order after such a severe check was admirable, but their habitual method of attacking in column cannot be praised. Against the Austrians, Russians, and Prussians, it may have been successful; but against the British it must always fail; because the English infantry is sufficiently firm, intelligent, and well disciplined to wait calmly in lines for the adverse masses, and sufficiently bold to close upon them with the bayonet. The column is undoubtedly excellent for all movements short of the actual charge; but, as the Macedonian phalanx was unable to resist the open formation of the Roman legion, so will the close column be unequal to sustain the fire and charge of a good line aided by artillery. The natural repugnance of men to trample on their own dead and wounded, the cries and groans of the latter, and the whistling of the cannon-shots as they tear open the ranks, produce the greatest disorder, especially in the centre of attacking columns, which, blinded by smoke, unsteadfast of footing, and bewildered by words of command coming from a multitude of officers crowded together, can neither see what is taking place, nor make any effort to advance or retreat without



increasing the confusion: hence no example of courage can be useful, no moral effect can be produced by the spirit of individuals, except upon the head, which is often firm and even victorious at the moment when the rear is flying in terror. Nevertheless, well-managed columns are the very soul of military operations; in them is the victory, and in them also is safety to be found after a defeat: the secret consists in knowing when and where to extend the front.'

At the battle of Albuera, the repulse of Colborne's brigade of the 2nd division was owing to its waiting to deploy into line until it came in contact with the enemy. The historian's words are— 'At this critical moment, General William Stewart arrived at the foot of the height with Colborne's brigade, which formed the head of the 2nd division. This officer, seeing the confusion above, desired to form in order of battle previous to mounting the ascent; but Stewart, whose boiling courage generally overlaid his judgment, led up without hesitation in column of companies, and having passed the Spanish right, attempted to open out his line in succession as the battalions arrived at the summit.' And the sublime language which records the final decisive repulse of the heavy French masses in column by the 'thin red line' of the 4th division is probably familiar to all the readers of these remarks.

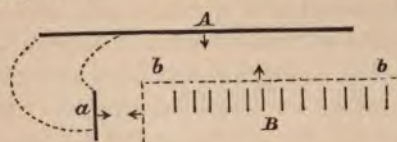
There is another description of flank-attack, somewhat different from any that has been above adverted to, which remains to be considered, viz., an attack made by a line on the flank of a column of march.

If the column could march in such a manner that a front parallel to the attacking line could be formed by the wheeling to the threatened flank of the divisions of which the column is composed, and that a resisting line, firm and

coherent, could be formed in the time merely which is required to complete the wheel of a quarter-circle, there would be no danger in such a flank-attack as is here supposed. To form such a line, however, under those circumstances, it would be necessary for the force, whatever its magnitude, to march in one long column at full distance, and to preserve that distance with mathematical accuracy; for any loss of distance near the head becomes multiplied in approaching the rear of a column, and incorrectness in this particular would leave dangerous gaps in the line of battle when formed on the exigency of a sudden attack. Although, therefore, Frederick the Great brought his army to such excellence in manœuvring, that it was a common practice with him to execute flank marches in this manner before an enemy in position—and several of his victories were attributable to his doing so—yet it must be remembered that the troops opposed to him were very inferior in discipline and instruction, and that on one occasion, at Kollin, he encountered a crushing defeat in the very act. Two or three battalions may execute such a movement with correctness; but for a large force to do so, however admirably drilled, except over perfectly smooth and open ground, unimpeded by obstacles, may be considered practically impossible.

It is not only an attack on the flank of its line of march that a long column, moving before a hostile line, has to dread. The relative positions of the two forces render it easy for the stationary line to detach troops to block the march of the head of the column, which, as has been explained, is the same thing in its effect as to attack the flank of its line, supposing it to form line, as it must do, to meet a threatened attack on the flank of its line of march. In the diagram, the army B is marching in column along the front of A formed in line. The latter detaches a body

(a) to block the march of the head of the column, while



it threatens or executes a general movement against the flank. To meet these dangers

coming from different quarters, B must form up a force (c) to oppose a, and with the remainder must form a line (b b) to resist the attack of A. B is thus required to make head against attack in front and flank at the same time; and it is evident that A, being master of the situation, can easily plant guns to enfilade both the long and the short face of B's formation.

The attack executed by Wellington simultaneously on the head and flank of Marmont's column of march at Salamanca affords as complete an illustration as it would be possible to find of these remarks.

The general having now determined the part of the enemy's position against which to direct his attack, his task is to place the troops who are to execute his plan at the points where they are to act, with the utmost rapidity, in the best order, and with the smallest possible loss. To this end, he has to consider—

*The most advantageous Order in which to march towards the Point selected for Attack.*

All movements of troops must be made in such a manner as will expose them to the least possible injury compatible with the fulfilment of the service on which they are employed; and from this axiom may be drawn the following conclusions:—

1. While exposed to artillery fire, troops should not march in column.
2. Infantry unsupported, in the presence of cavalry, should not march in line.



It is evident that these two precepts are incompatible in the case where an enemy's guns play upon your march, while his cavalry, hovering about your infantry, threatens to charge. If caught in this predicament, as the Light Division was in retreating over the wide plain of Fuentes Onoro, you must make the best of it, as they did: but a similar danger should never voluntarily be encountered; and the only way to reconcile the above two precepts is to avoid subjecting infantry to the united action of guns and cavalry, unless you have an equal force of cavalry to check that of the enemy while your infantry moves rapidly under the play of his guns in line.

For a body of infantry unsupported can hardly hope to escape destruction if obliged to march for any distance across a plain exposed to the united action of cavalry and artillery, because infantry when threatened with a cavalry attack must move in quarter-distance column; that being the order of march from which the formation of the *square*, the only effective formation against cavalry, can be most quickly assumed. Thus, the mere presence of hostile cavalry will compel the infantry to march in a dense column. And that is not the worst of the mischief: by threatening to charge, the cavalry can compel the infantry frequently to halt, thus detaining it in its close formation under the fire of the guns, and being at the same time on the watch to avail itself of any confusion occasioned by that fire to charge home.

3. Troops moving in presence of an enemy must march in that order which will enable them in the shortest possible time to assume the formation necessary to resist a sudden attack with the fullest effect.

Infantry marching in column, therefore, should not be exposed to the attack of an infantry formed in line, on account of the superior front for fire of the latter, as well

as of the power which it possesses of overlapping the flanks of the column at the same time that it opposes the front, either with fire or in a bayonet charge. The most effectual formation for resisting such an attack is in a line parallel to that of the enemy: therefore, a body of troops moving within reach of attack should march in that order which will enable them to form line parallel to the enemy's front with the least possible delay. But this is peculiarly applicable only to flank marches before an enemy in position, such as has been remarked upon under the head of Flank Attack; for in the case where a body of troops march in column directly to the assault of a hostile position, they would form line before coming into collision, while still beyond the reach of any destructive musketry fire, as has been already explained.

When not exposed to immediate attack or to the action of guns, however, the column formation is beyond comparison the most convenient order of march, on account of its compactness and mobility. A column marching to the attack of an enemy's position is analogous in its action to the flight of a shrapnel shell, which is propelled in one mass until within a certain distance of the object against which it is directed, and then breaks up into a shower of projectiles which spread themselves in their onward movement over an extended space.

The formation of *echelon* is a sort of compromise between the column and the line, partaking to a certain extent of the advantages of both. It combines a greater correctness of march and plasticity than are possessed by a line, with the superior force of the latter for collision, while it is exempt from the disadvantage of the column in respect to artillery fire.

*The most advantageous order for actual collision with the enemy* is, in general terms, that order which will

enable you to put into vigorous and effective action against him every single man of the force you bring up to the point of collision.

Where infantry attacks infantry, the two-deep line alone fulfils this condition, because every man can fire freely.

Where infantry is opposed to cavalry, the four-deep square must, on the same principle, be the formation; because it may be attacked on either or all of its four faces, and the action of every man is called into play. It is true that all the men of a two-deep square can fire freely; but the formation is too weak to encounter the shock.

For cavalry, the only recognised order of battle is in a two-deep line; though it is a question if single rank would not be the best formation for a charge, the ranks being at a distance of twenty yards apart.

The only case in which the column formation is justifiable in attack is in the assault of a defile, whether it be formed by a breach, a bridge, or a street. The front of the assailants is arbitrarily contracted by the defile in passing it; and in order to oppose the superior front of the defenders ranged beyond it, the assailants must advance in a mass, which exposes them to great loss: but this is unavoidable, and the disadvantage must be reduced as far as possible by rapidity of movement. In every case, however, an attack should be made on as wide a front as the ground will admit of.

#### *On the Method of conducting an Attack.*

In the rules which have been laid down for the occupation of a defensive position, it has been insisted on that the troops should be able to form a continuous line of infantry along all parts of the front which are assailable. Similarly, it is necessary that the attacking columns shall be able to



form a continuous line of infantry along the front of collision.

In the present day, armies do not advance to attack an enemy simultaneously along his whole front in a line parallel to that which is to be assailed. One point is usually selected as most important for the decisive effort; and secondary points may be chosen, the fewer the better, to distract the attention of the enemy or to prepare the way for the decisive attack.

If any favourable ground should exist in front of a defensive position which you are about to attack, within a convenient distance of the enemy's line of battle, such that your columns may deploy in safety under its cover, or that the possession of it would enable you to annoy the defensive line, that ground should be at once seized and strongly occupied if the enemy has neglected it; if otherwise, the importance of the post to the ulterior success of your plans must determine whether or not it should be assaulted and carried. By obtaining possession of such an advanced post, you establish yourself, as it were, within the enemy's defences; you acquire a base, so to speak, for your operations against his main position: he must, therefore, make a point of dislodging you if he can; and in the attempt to do so he engages in a contest at a disadvantage, because you are already established there, and can support your troops with others flanking them from the rear. This measure will oblige the enemy to dislodge your flanking supports before he can hope to carry the contested points, and for that purpose to venture to a distance from his position which may be unsafe for a force fighting a defensive battle, and which may give you the opportunity of striking a serious blow.

Any advanced post which may be occupied by the enemy in front of that part of his position against which you

design to direct a decisive attack, must either be assaulted and carried, or must be masked by a superior force while your columns pass it on either flank.

If you should succeed in establishing yourself in such a post, then the line of communication between it and your main body must be so organised that you may be able to direct upon it a constant stream of reinforcements. Once in possession of such a point, so linked to your main body, your attack on the enemy's position in rear may be made securely. The principle of such a mode of proceeding may be illustrated by the comparison of the hose of a fire-engine led to the point from which it is intended to scatter its water; or, better, a closed hand thrust forward to the full reach of the arm, the fingers being afterwards extended. Here the closed hand represents any vantage-ground near the enemy's line which you may have acquired. So long as the hand is firm or uninjured, the fingers may be extended and drawn in again at pleasure: an injury to one finger does not affect the other fingers, or the hand itself; but an injury to the hand impairs or destroys the action of the fingers. The arm here represents the line of communication; and the body from which it is extended, the main body of the army. The analogy is complete; for if the arm is severed, the hand is powerless, just as any advanced post must be powerless where the communication between it and the main body is cut off.

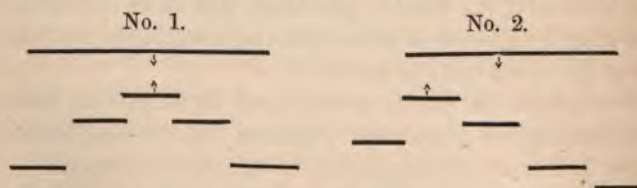
This admirable simile is employed by Napier to illustrate Napoleon's strategical measures for the conquest of Spain, but is equally applicable to tactical movements.

Although the advance of the attacking columns must be so regulated that they can extend into a continuous front of infantry parallel to the front of collision, it is not necessary, nor indeed is it commonly desirable, that the heads of the columns should march on the same line. The advance

in direct echelon is generally the best, particularly where the flank of the attacking troops may be threatened, on account of the flanking support afforded by that formation. For instance, if the centre of a line is to be assailed, the columns of attack should advance in direct echelon from the centre. The general form of this mode of assault, and the effect, would be that of a wedge—the head alone being in contact with the enemy, but deriving support as well as protection from the successive bodies which flank it and each other. Here the wings would be secure from a sudden attack by reason of their distance; and if the enemy should undertake a counter-attack on either wing, ample time would remain for the dispositions proper to repel it, for which also the formation in echelon would afford peculiar facilities.

If one wing only of the enemy's position is to be assailed, advance would be in direct echelon from the flank opposite to that wing. The inner flank of the leading body of the echelon would be secured by those in rear; but the outer flank must likewise be secured by a body of troops of all arms, in echelon behind.

In the accompanying diagrams, No. 1 represents an attack on the centre; No. 2, one on the right flank of



an enemy's position. In both cases the retired flanks must be supported by guns and cavalry.

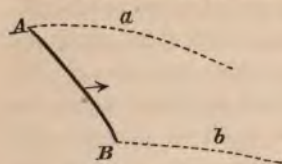
It can rarely, almost never, be justifiable to attack an enemy simultaneously on both flanks unless the assail-



ants have a very large preponderance of force; for both the flank attacks must be reinforced at the expense of the centre, which thereby becomes unduly weakened, and which cannot be kept at such a distance from counter-attack as a refused wing in the case where only one of the enemy's flanks is assailed. This does not, however, preclude a demonstration against one flank to distract the enemy's attention from the other, supposing it to be the real object; although it would be generally more prudent to select some other point for such demonstration, because it may become advantageous at any moment to convert a feint into a real attack: indeed, the possibility of doing so should never be lost sight of; and there must always be a greater difficulty in reinforcing the two extremities of a line than two points more nearly approached to each other. And it should be regarded as a rule, that in attacking a position with an inferior force, it is not advisable to form two separate attacks on points distant from each other. These would both be extremely liable to fail, whereas one vigorous effort supported coherently by the offensive army might succeed.\* The battle of Vimiero is an example, where Junot with 14,000 men attacked Sir Arthur Wellesley who commanded 16,000 men in a strong defensive position. The French general formed two columns of attack, designing to assail the centre and left; but, from the nature of the ground, the part Junot took for the centre became really the right; and thus, with an inferior force, he found himself committed to two attacks simultaneously against the extremities of the hostile line—attacks which were defeated in detail for the want of communication and concert. A B represents the English position. Two roads (*a* and *b*) approached the front from Torres Vedras, through which place led Junot's line of retreat on Lisbon: of these,

\* See note at page 143 on the battle of Gettysburg.

*b* was much the shorter. When the French column which assailed *B* was repulsed with loss, the right-hand column



was still engaged at *A*: the troops repulsed from *B*, therefore, instead of retiring by their natural line, viz., the road *b*, were obliged, in order to avoid separation from the rest of the

army, to withdraw towards the road *a*, passing across the front of the British position, and thereby uncovering the direct road of retreat to Torres Vedras;—a fault Sir Arthur Wellesley was prepared to take advantage of by cutting off their whole army from that place, had he not been at the moment superseded by a less enterprising commander.

#### *On the Movement to turn a Position.*

To turn an enemy's position, an attacking army must make a flank movement round that flank which it is intended to turn. This movement may either be executed strategically, beyond the enemy's view, the march of the army having been arranged for that end; or tactically, after the two opposing forces have formed opposite each other in battle array. In the last case, great caution and careful arrangement are requisite.

It will be useful to consider how far a general may safely extend a flank movement having for its object to turn completely an enemy's position.

In general terms, the rule for such movement must be, that the army undertaking it shall move as a whole, with constant coherence, and the power of mutual rapid support between its different parts. It must so conduct its flank march, that, if attacked, the line of battle can be formed in an instant; and a part of the force must always effectually cover the line of retreat.

It is clear that if a general move his army bodily round one of the enemy's flanks for the purpose of acting against his communications, he will have violated military rules in abandoning his own line of retreat, unless he be provided with some other such line which his army in its new position does still cover and protect. Such a risk might be justified by peculiar moral considerations; by the prospect of inflicting some great and crowning damage on the enemy, if successful, to which the loss of the attacking army would bear only a small comparison; by a great superiority in the number or quality of his troops; or by the effect of recent victories in elevating the spirit of his own soldiers and depressing his opponents. Still, the rule must be against such risk; and the sense of the responsibility in case of failure will ordinarily be sufficient to deter any but the greatest generals from attempting it.

At the battle of Toulouse, Wellington undertook what would seem to ordinary observers probably the most hazardous flank march of which there is any record—a flank march with the greater part of his army between a powerful and skilful enemy, strongly posted, and an unfordable river, and exposing dangerously his line of retreat. But he went upon the tried qualities of the British infantry; on the elation and confidence of his troops arising from their numerous recent victories, and on the counter-influence of these victories upon the French soldiers, so that defeat of the latter had come to be looked upon as the certain result of an encounter; lastly, on his own great reputation, which was then established.

The reflection is here suggested, that while a double line of operations—that is to say, the advance of a military force, acting with one object, on two distinct lines without intercommunication—is condemned by all military rules, on account of the impossibility of concert which results

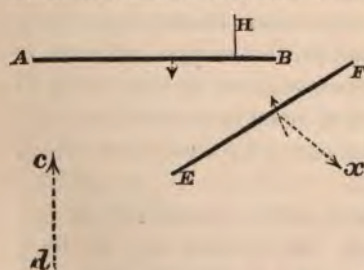


from such separation; it is a great advantage, on the other hand, to an army on a field of battle to be provided with two distinct lines of retreat conducting to different bases, on either of which it may fall back with equal, or nearly equal, advantage.

It is evident, from what has been said before, on the influence which the locality and direction of the line of retreat must exercise on the choice of a point of attack,—so that a general may be debarred from the mode of action which the abstract consideration of the hostile position would prescribe as the best, and compelled to adopt another method of attack less advantageous in its probable results,—that an army possessing two distinct lines of retreat may, on that account, safely undertake operations promising particular advantage which would otherwise be impossible.

The victory gained by Frederick the Great at Leuthen is a complete illustration of this.

In the accompanying diagram, *A B* represents the Austrian position, *c d* the advance of the Prussians. At *c* the Prussian advanced guard attacked and carried a village occupied as an advanced post by the Austrians. The Austrian commander, Marshal Daun, believing his right to



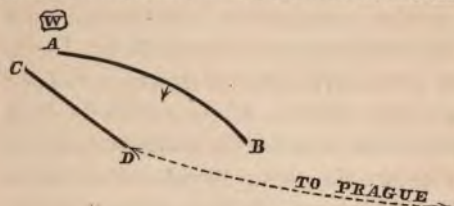
be the intended object of Frederick's attack, carried his whole reserve towards that point. In this belief Daun felt perfectly secure for his left; he knew Frederick to be greatly inferior in numbers, and that he could not, consequently,

extend himself sufficiently to his right to attack the Austrian left without leaving uncovered the line *c d*.

Frederick had advanced from the base of Bohemia ; but he had a second secure base on which he could retreat, in Upper Silesia, in the direction *x*. When Frederick, therefore, established himself in the village *c*, and reconnoitring the position in his front found the right too strong to be successfully assailed, he determined to carry his army bodily by a flank march to his own right, and to place it in a position to attack *en masse* the Austrian left. This march quite across the front of his army was not perceived by Daun, whose attention was constantly directed towards *c*, from which his troops had been driven ; and a screen of high ground enabled Frederick to complete his movement, and to form his army in *EF* before the enemy became aware of his intentions. Daun then endeavoured to form a front parallel to the attack by wheeling back about half of his left wing at right angles to the original front, as shown at *H* ; but such an angle must always be weak against a body of troops ready formed to attack it : the Prussian guns could also enfilade the short face so formed. By reason of the greater concentration of his army at *EF*, Frederick could feed the attack more rapidly than the Austrians could reinforce, and a decisive victory was the result. Let it be noted that in the flank march across the front of the position, the Prussian advanced guard marched along a low range of hills, slightly in advance of and between the main body and the enemy, although screened from the latter by another parallel range. Let it be noted also, that if the Austrians had occupied the heights in their front for observation, Frederick's march would have been detected and opposed at the commencement.

But the campaigns of the same Frederick afford an example of as signal a defeat incurred by himself, through a disregard of the rules which apply to flank marches before an enemy in position, at the battle of Kollin.

In the diagram, A B represents the Austrian position. The dotted line represents the road leading from Prague, by which Frederick advanced, and which was his only line of retreat. He had, indeed, left 25,000 men to blockade Prague; and it was to prevent the Austrian commander, Daun, from disturbing that blockade that the Prussian monarch marched to attack him at Kollin. Nevertheless—



and although B was the weaker of the Austrian flanks, for the attack of which the direction of Frederick's ad-

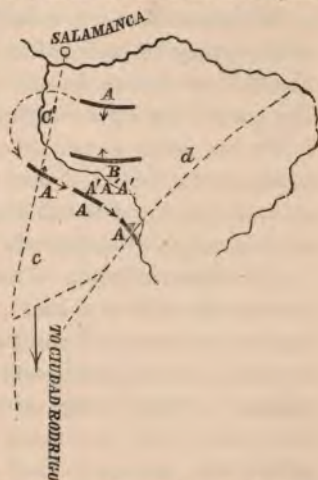
vance was peculiarly convenient, and in which operation his retreat would have been easy and secure—he preferred to carry his army across the enemy's open front, within cannon-shot from the guns of his position, and within musketry-fire from his numerous and strong advanced posts at the foot of the heights which constituted that position, for the purpose of placing it at C D to attack the flank A. The consequence was that the Prussians were thrown into confusion, the attacks were unconnected and without method, and though the flank A was vigorously assailed, it was so strongly supported by a large wood and village at W in echelon to the rear of that flank, that every attempt was repulsed. By advancing their left the Austrians seized upon the road to Prague, and Frederick, cut off from that place, was driven to retreat in quite the opposite direction, thereby separating himself from that portion of his army which was engaged in the blockade, and causing the abandonment of that operation.

Marmont's advance at Salamanca, and the relative positions of the two armies, bear a strong resemblance to the



foregoing example, with less rashness, however, on the part of the French general, since he kept strong possession of the hill called the French Arapiles, which covered his line of retreat from a forward movement of the Allied left, while he, at the same time, posted a strong body of troops, under Foy, to protect it from being seized by a flank movement.

At a later period, when Wellington occupied a second time the Salamanca position, in which he turned at bay in the hope of bringing on a general action during his retreat from Burgos, Soult, by making a wider movement than Marmont had done, beyond the reach of a sudden attack, succeeded in interposing a superior army between Wellington and Ciudad Rodrigo. The flank march of the latter to regain his communications is one of the most extraordinary instances of daring and good fortune on record. In the diagram, A represents Wellington; B, Soult. The road to Ciudad (*c*) which was A's line of retreat led past the left flank of B; another road (*d*) by means of which the French might intercept the first, led past the right flank of the latter also to Ciudad. Wellington remained too long in his position, in the hope that he would be attacked. When it became evident, however, that Soult's design was to collect a large and increasing force on his communications, he formed his army in three columns, and, covering his exposed flank with his cavalry and guns, defied in order of battle before the enemy at little more than cannon-shot distance. 'With



a wonderful boldness and facility, and good fortune also, says Napier,—‘for there was a thick fog and a heavy rain, which rendered the byways and fields by which the enemy moved nearly impassable, while the Allies had the use of the high roads,—he carried his whole army, in one mass, quite round the French left: thus he gained the Valmusa river, where he halted for the night, in the rear of those who had been threatening him in front only a few hours before. This exploit was certainly surprising, but it was not creditable to the generalship on either side; for first it may be asked why the English commander, having somewhat carelessly suffered Soult to pass the Tormes and turn his position, waited so long as to render this dangerous movement necessary—a movement which a combination of bad roads, bad weather, and want of vigour on the other side, rendered possible, and no more.’ In the diagram, *A'* represents the Allied position after the movement.

We proceed now to consider under what circumstances a general may be justified in detaching a part of his force on the field of battle, for the purpose of its cooperating with the main body by attacking the enemy in flank or rear.

To set forth clearly the general objections to such a mode of proceeding, it may be stated that the success of two attacks, coming from different quarters, on the same part of an enemy's line, depends on their being made absolutely at the same moment. This simultaneity of attack cannot be insured without concert; and this last evidently depends on the existence of constant and rapid communication between the two bodies which are to act with one common object. When troops are detached for the purpose of cooperating with the main army in a previously-concerted attack, the moment they pass beyond eyesight concert between the separated bodies cannot be absolutely certain. The commander of the detachment may have set his watch

with that of his superior, so that he may place himself in some determined position with a view to attack the enemy at a given physical instant of time. When that moment arrives, however, and the general-in-chief, relying on the cooperation of his subordinate, orders a forward movement, the latter may be struggling against unexpected natural obstacles, or with a hostile force detached to delay him: the principal attack will probably fail in consequence, and the detachment coming up too late will be beaten in detail. However well conceived a combined attack may be which is to be executed by two bodies whose movements cannot be mutually perceived, a thousand accidents may disconcert it. Signals cannot be relied upon, for a fog renders them useless. The failure of the British at New Orleans was principally owing to the fact, that the troops detached to a flank under Colonel Thornton with orders to carry a redoubt from which the American defences could be completely enfiladed, failed to perceive the rocket which was to be the signal for their assault, owing to the thickness of the weather. There was, consequently, no concert between the principal attack made on the enemy's front and that on the redoubt, which ought to have been simultaneous; and though Thornton did at length advance without signal, and succeeded in carrying the redoubt, his success was too late to influence the result of the main attack in front of the works, which had already been repulsed.

At Sebastopol, on the 18th June, the French attacking columns mistook a war-rocket for the signal-rocket which was to be the signal for the assault, and they advanced against the Malakhoff an hour too soon, before the supports were in their places.

Is it, then, to be concluded that a portion of an army must never be detached beyond eyesight of the main body for the purpose of executing a combined attack from two



different directions? By no means! it has constantly been practised, frequently with success. One of the latest instances is afforded by the detaching of MacMahon's corps to cross the Ticino at Turbigo, and to come down on the right flank of the Austrians at Magenta. But to any one familiar with the details of that battle, the precariousness of that movement and its fortuitous success will give a point to these remarks, which are only intended clearly to set forth the possible chances which, in such circumstances, may disconcert the best-conceived plan, and to inculcate caution. But it should be regarded as a rule, that a detachment should not be made beyond eyesight for the purpose of cooperation with the main body in a combined attack, without retaining the power of certain and rapid communication. To do so, would be analogous to the strategical fault of operating on double exterior lines, that is to say, of advancing against an enemy in the theatre of war from two distinct bases, on two lines of operation having no communication between them.

The foregoing reasoning all resolves itself into a question of *distance* or *time*, and *concert*. The enemy against whom two attacks from different quarters are to be directed, occupies a central position\* with respect to the bodies destined to make them. He is thus interposed between these bodies—a great advantage in military operations! to which the Irishman's idea of surrounding his enemy can seldom be successfully applied.

#### *To attack a Gorge or Defile.*

The general rule to be observed in this operation is, that it is not safe to attack a defile, however open, so long as the heights on each side are occupied by the enemy. A defile may consist, however, of a mountain gorge where

\* See remarks on the advantage of a central position, page 137.

the bordering cliffs may be inaccessible on both sides, or on one side only. Or it may be a mountain pass where the heights on both sides are accessible and of equal height, or where, both being accessible, one side commands the other. All these cases demand different dispositions. In the case where a road is hemmed in between mountains on one side, and a lake or unfordable river on the other, the lake or river is the same in principle and effect as if it were an inaccessible cliff.

Where the bordering heights of a defile are inaccessible, it becomes a question with the assailants whether they will attack and carry the gorge by main force, or whether they will await the effect of a turning movement which would compel the enemy to abandon his position without fighting. The decision must be governed by the strength of the position, or by the time which the turning movement would occupy.

Where a defile is bordered by accessible heights of equal elevation, three columns of attack must be formed, and the assault of the heights on each side must precede that of the gorge, which last must not be made until the flanking columns shall have acquired a firm footing on the heights. The advance of these last along the heights will render untenable the position of the defenders of the gorge itself, which may then be safely entered by the centre column, the latter regulating its advance through the gorge by that of the flanking columns on the heights above.

Where a defile is bordered by accessible heights, one of which decidedly commands the other, two columns of attack might be sufficient, although it would still be more prudent to sweep both sides.

But an army charged with the defence of a defile would not usually oppose any serious resistance to the entrance of the enemy into the defile. Although the general might

barricade the gorge and occupy the enclosing heights by flanking troops, this would only be as a sort of advanced post. His main defensive position would be in rear of the defile; because his army being there drawn up in battle array on its proper front, could act in all its parts with freedom, and would be able to overwhelm the enemy as he issued from the gorge in a long thin stream of troops, before the successive fractions of the latter could form for resistance.

Every narrow passage which arbitrarily contracts the front of troops in march is essentially a defile. Of this nature may be enumerated the following varieties:—

1. A bridge over an unfordable river, where the water on each side represents the inaccessible cliffs of a mountain gorge.
2. A causeway over a marsh, to which the same remark applies as to a bridge.
3. A road through a wood or forest.
4. A breach.
5. A street.

The same principle applies to any contracted position occupied for defence where the flanks rest on strong *offensive* obstacles; that is to say, where the line is so short that the musketry-fire from either flank can effectually sweep the approaches to the other. In such a case the strong flanks are analogous in their protection of the intervening ground, to the flanking heights of a defile, and the centre should not be attacked until one of the flanks is carried. Such a position, however, will either be a defile or not, according to the number of troops engaged on each side. If the width of such a contracted space bear no proportion to the length of front of the opposing troops, it is then a defile: thus, a line of several hundred yards, extending between a wood and a village, for example, may



be of the nature of a defile to an army whose front extends over several miles, whereas it would be only a strong battle-position for two thousand men.

The attack of a street is precisely analogous to that of a gorge which is bordered by heights of equal elevation. The houses on each side here form the defile, and answer to the enclosing heights. The column intended to clear the street must not advance to the attack of the barricade until this shall have been turned by flanking troops, who having forced an entry into the houses on each side, have then made their way from one house to another by means of the miner's pick, or by the roofs, until the barricade is turned on both flanks.

### *Examples to Foregoing Chapter.*

#### THE BATTLE OF ORTHES.\*

In order to give a clear understanding of this battle, it is necessary to say a few words on the movements which preceded it.

At the commencement of the operations of which the battles of Orthes and Toulouse were the culminating events, the French army occupied the line of the Nive as its strategical position; the right resting on the citadel and intrenched camp of Bayonne; the left, on the fortress of St. Jean Pied-de-Port. Wellington, by a series of able manœuvres, forced the passage of the Nive, and pushed the French back from that river and over all the rivers parallel to it in succession, until at length Soult was forced to withdraw his left behind the Gave de Pau, while his right still pivoted on Bayonne. Wellington's force, if properly handled, was sufficiently superior to render this result a certainty by the constraining power of his

\* See Plan 1, for preliminary movements.

manceuvres without engaging in a battle. His mode of action, described generally, was to turn in succession the left of the French positions on those rivers, which all flowed into the Adour from the roots of the Pyrenees, by sending detachments to cross them near their sources, thus continually outflanking the French left and compelling Soult to draw it back. It was Wellington's aim to detach the French army from Bayonne on which its right continued to rest: his operations to turn the left were undertaken in that view; their effect was, by threatening Soult's communication with Toulouse, to oblige that marshal to draw his army to a head at Orthes behind the Gave de Pau, and thereby to leave Bayonne to its own resources.

Soult had fixed upon Orthes as his point of concentration, because that place covered the communications with Bordeaux as well as Toulouse, both of which he wished to preserve. If obliged to retire from Orthes, he must then make his choice between those places and abandon his connection with one of them.

The preliminary movements of the hostile armies were as follows:—

While Wellington, with the 2nd, 6th, and light divisions, Hamilton's Portuguese, five regiments of cavalry, and three batteries, followed the French left under Soult in person from Sauveterre on the Gave d'Oleron to Orthes, Beresford, with the 3rd, 4th, and 7th divisions, and two light cavalry brigades, was opposed to the French right under Foy, who occupied the *tête de pont* of Peyrehorade at the mouth of the Gave d'Oleron; and to the French centre under Taupin, which was at the Bastide de Bearn, higher up that river. Wellington's passage of this stream on the left of Taupin compelled the latter, and after him Foy, to fall back towards the general point of concentration at

Orthes. Taupin retired on Berenx, where there was a bridge over the Gave de Pau, which he destroyed behind him after crossing it. Foy fell back on the main road leading by Puyoo, after destroying the bridge of Peyrehorade. The 3rd division and one brigade of cavalry, following Taupin, took post in front of the broken bridge of Berenx. Beresford, with the 4th and 7th divisions, and Vivian's cavalry brigade, passed the Gave de Pau partly on pontoons, partly by fording, gained the high road beyond, and advanced to Puyoo, where he encountered and drove back a French cavalry force; thence, after throwing out a detachment to Habas on his left, to intercept the enemy's communication with Bordeaux by Dax, he continued his advance to Berenx, where he covered the 3rd division and its cavalry in the operation of crossing the river by fords below the broken bridge. The 3rd division, &c., then took post for the night by the side of the road facing towards Orthes, while the 4th and 7th divisions took up their position on some heights to the left of the road. A pontoon bridge was constructed during the night at Berenx, and the 6th and light divisions were sent from Orthes to that point, where they formed a link between the separated wings of Wellington's army.

Thus, on the night of the 26th February, the general situation was as follows :\*

Hill, with the 2nd division, Hamilton's Portuguese, five regiments of cavalry, and three batteries, was on the left bank of the Gave de Pau, in front of Orthes.

On the left of this force, two miles distant, and likewise on the left bank of the river, were the 6th and light divisions, having the pontoon bridge of Berenx in their front.

Beyond the pontoon bridge, and on the right bank of

\* See Plan 2.



the river, was the force under Beresford, the disposition of which has been above given.

The French army was now in position on a range of hills running parallel to the river which covered the front, the right looking down on Berenx, which was about half a mile beyond that flank.

A reconnaissance made on the 25th and 26th informed Wellington that the bridge of Orthes was too strong, defended as it was, to be forced. That structure consisted of several irregular arches, with a high tower in the centre the gateway of which was built up by the French; the principal arch in front of the tower was mined, and the houses on both sides contributed to the defence. The river immediately above and below was deep and full of tall pointed rocks; but above the town, the water spreading wide, with flat banks, presented the means of crossing.

It will doubtless appear that Soult was negligent or timid to suffer Beresford, with only two divisions and some cavalry, removed as these were from all reach of support, to beard the whole French army on the 26th on the right bank of the Gave. The explanation is, that Soult was kept in ignorance of Beresford having crossed the river, by the neglect to report that circumstance of the officer in command of the cavalry who had been beaten back from Puyoo; so that Soult only learnt of his march when Beresford was close to the right flank of the French army, when his scouts were at Habas on the Dax road in its rear, and when Soult's attention was distracted by the appearance of the 3rd division at Berenx, by the continual skirmishing kept up by the British in the suburbs of Orthes, and by the appearance of Hill's troops on the heights above.

Soult's only choice now lay between attacking Beresford on the right bank while separated from the rest of the

army, and changing his front; for, according to the existing disposition of the French army, Beresford was established on his right flank. The French marshal seems to have hesitated between these two courses; but finally judging that he had not time to form his columns of attack he decided to change his front, which he effected by throwing back his right, skirmishing meanwhile with Beresford to cover the movement.

Soult's new position extended along a ridge of hills, partly wooded, a distance of about one mile and a half. His force numbered 40,000 men of whom 3,000 were cavalry, and 40 guns, giving an average of nearly 27,000 men to a mile; but of the infantry, 8,000 were newly-joined conscripts.

The general form of the position was irregular; the right half being concave towards an assailant, while the left half, on the contrary, was slightly convex. The left rested on the river at Orthes; the centre was formed by an open rounded hill, the highest ground of the ridge to which the remaining heights were subservient features; and from this central hill two long spurs were pushed out, on the left hand towards the high road near the river, on the right hand by St. Boes towards the high church of Baigts: the right was at St. Boes, where the summit of the ridge contracts to a narrow neck over which passes the road from Orthes to Dax. The right half of the front was covered by a deep and marshy ravine, broken by two shorter and lower spurs than the two first mentioned, springing like them from the principal hill. Behind the right, the country was low and deep; but behind the centre, a bare heathy hill, narrow on the summit, being likewise a spur from the central hill, stretched away towards the right rear as far as the river called the Luy de Bearn: beyond this hill was another of the same charac-

ter, running parallel with it, which overlooked the ford of Souars at one extremity, and terminated in its other extremity, like the first, at the Luy de Bearn river. In the valley between these two parallel ridges ran the road from Orthes to St. Sever on the Adour. This road was the line of retreat of the French army, and it was well covered by the position and the town of Orthes.

The communication between the several parts of the French line was as good as possible; and the road from Orthes to Dax, which ran all along the rear, was very favourable for the movement of guns.

The approaches to attack the position were difficult. A swamp covered the concave part on the right from a front attack; and the two spurs which protruded from the central hill were partially obstructed by woods.

The principal tactical points of the position were—  
1. On the right flank, the narrow neck to which the ridge was contracted at St. Boes; 2. The bridge and town of Orthes, on the left flank; 3. The central hill, which dominated the whole. In front of the last, however, at the distance of about three-quarters of a mile, was another isolated hill nearly as high which was crowned with an old Roman camp; and at this spot, on the morning of the 27th, Wellington remained for an hour to examine the enemy's dispositions.

Soult occupied his ground as follows:—

Reille, who had under him the divisions of Taupin, Roguet, and Paris, commanded on the right half of the line. He placed Taupin to guard the village of St. Boes and the narrow neck, forming him across that neck nearly at right angles to the general line. Roguet's division was on his left; General Paris was in rear as a support to both.

D'Erlon, having under him the divisions of Foy and



d'Armagnac, was on the left of Reille. He placed Foy across the root of the tongue which is pushed out towards the high road. D'Armagnac was on Foy's left, but in echelon to the rear.

Clausel was on the left of d'Erlon; he had two divisions, viz., Harispe's, which occupied Orthes and the bridge, with two battalions detached to guard the ford of Souars above; and Villatte's, which was posted in rear of the centre, on a wide part of the long heathy hill described as stretching towards the right rear. Villatte, with whom was the cavalry, thus formed a general reserve, and was by reason of the generally circular form of the position perfectly placed for reinforcing all parts equally. Of the artillery, twelve guns were posted on the central hill, where they commanded the ground in all directions. Sixteen guns were placed in reserve on the Dax road behind the centre, whence they could in a few moments reach any part of the line of battle.

This position, then, was one of uncommon strength with reference to the actual circumstances in which Wellington was now committed to fight; that is to say, with Hill's troops in front of Orthes on the left bank of the Gave, and the remainder of the army on the right bank, with which Hill could only communicate by the pontoon bridge of Berenx, two miles distant. It was vain to think of attacking Orthes; Hill could not force the bridge, and on the right bank it would have been madness to march against that place between the river and the French army on the heights above. The French front, of only a mile and a half development, was occupied by 40,000 men; but there was no contraction of manœuvring space, and the whole number could, by such a commander as Soult, be brought into vigorous action.

We now turn to Wellington's dispositions. The force

at his disposal for the battle was about 37,000 men of whom 4,000 were cavalry, and 48 guns: he was thus inferior to the French in infantry, slightly superior in cavalry and guns.

Before daybreak on the 27th, Beresford, with the 4th and 7th divisions, Vivian's brigade of cavalry, and two batteries, quitted his camping-ground of the previous night near the high road, and marched by a road leading behind the Roman camp to the extremity of the right-hand spur of the French position, which this road ascended near the high church of Baights.

By this movement of Beresford, the 3rd division and Somerset's brigade of cavalry were left alone, unsupported, between the river and the foot of a hill which was occupied by 40,000 enemies; and so they remained until they were joined by the 6th and light divisions, which commenced to pass the river at Berenx simultaneously with Beresford's movement. The way from the bridge up to the main road where the 3rd division was posted, was by a narrow path between high rocks. If the French had attacked vigorously while the troops were struggling up the difficult ascent from the water, they would probably have obtained an easy victory over the 3rd, 6th, and light divisions; and Soult might then, by sending one division to the Roman camp, and directing an overpoweringly superior force against Beresford on the ridge of St. Boes, have easily defeated the latter and cut off his retreat. But the critical moment was allowed to pass by the French commander, and Wellington, who concealed a feeling of uneasiness under his usual calm exterior, drew the light division behind the Roman camp, thereby connecting his wings and forming a central reserve. The 6th division was left to reinforce the 3rd.

The nature of the ground in front of the centre pre-

cluding all idea of assailing that part with any prospect of success, Wellington decided to make simultaneous attacks by operating along the two spurs before named. Beresford was to march along the spur of St. Boes against the French right flank; the 3rd and 6th divisions, under Picton, were to move up the spur which abutted on the high road near the river, the ascent of which from the road was steep and wooded.

Both attacks were commenced at 9 A.M., and were soon repulsed in the most decided manner with considerable loss. And this is not surprising when it is considered how favourable the enemy's position was for concentration at any particular point, and how unfavourable was the ground over which the British advanced. The right attack failed because the nature of the ground admitted of only a very narrow front, and therefore only a few men could be engaged at once; for the spur or sloping ridge up which Picton advanced was so narrow as to be of the nature of a defile for the assailants, while the French on the plateau above, formed across the neck of the spur, could deploy any force they pleased. For the left attack the difficulties were even greater. The 4th division, marching along the summit of the St. Boes ridge, made several desperate attempts to carry the village and the narrow neck which formed the key to that part of the position. In this attack, General Cole, who commanded the 4th division, employed Ross's brigade and a Portuguese brigade, keeping Anson's brigade in reserve. But the 12 guns in the centre smote them in front, while the 16 reserve guns on the Dax road swept through them from flank to flank, and they had to encounter a superior force of infantry. The French skirmishers swarmed round the flank of Ross's British brigade engaged at St. Boes, whereupon Wellington detached a Portuguese regiment of the



light division from the Roman camp to support him ; but before this measure could produce any effect the Portuguese brigade of Cole's division gave way in disorder and the British troops were then withdrawn, after a contest of three hours, just about the time that the attack of Picton with the 3rd and 6th divisions was repulsed on the right. Victory seemed now to declare for the French, and Soult, conspicuous on the central hill which was the knot of all his combinations, seeing his enemies thus broken and thrown backwards on each side, put all his reserves in movement to complete his success, and in his exultation is said to have exclaimed, smiting on his thigh, ' At last I have him ! '

This first part of the battle was fought by two-thirds only of the whole Allied force ; for Hill had been left with 12,000 combatants before the bridge of Orthes, where he still remained.

Wellington now altered his plan and his dispositions. He ordered Beresford to form the whole of the 4th and 7th divisions, supported by Vivian's cavalry, in one mass for a new effort, the success of which he hoped to secure by the action of the 52nd regiment from another quarter. That regiment was to descend from the Roman camp, cross the marsh, and ascending the heights in front, fall upon the flank and rear of the French troops who defended the narrow neck behind St. Boes.

The 3rd and 6th divisions were together to attack Foy's left flank and the front of d'Armagnac's division ; while Hill received orders to pass the Gave at the ford of Souars, partly to prevent the troops in Orthes from assisting d'Armagnac, partly in the hope that Hill might gain a success in that quarter.

This combination was completely successful. Beresford attacked vigorously according to orders, while the 52nd

regiment, whose achievements were extraordinary, crossed the marsh, mounted the heights, penetrated between Roguet and Foy, beat down a French battalion, and threw all the troops in their vicinity into disorder; so much so that Reille, who was at that time hotly engaged with Beresford, was compelled to fall back and take up a new position. His doing so left open the narrow neck behind St. Boes, through which Beresford pushed his whole force, and then deployed on the open plateau on the right flank of the enemy's line.

Meanwhile, Picton, with the 3rd and 6th divisions, had assaulted and beaten back d'Armagnac, and established a battery on a knoll which enfiladed Foy's division and all the troops on his right; while Hill forded the Gave at Souars, and seized the long narrow hill which abutted on the ford, thereby menacing the French line of retreat by the St. Sever road.

Soult had now no choice but to retreat as rapidly as possible. The French retired along the summit of the long heathy hill which ran from the central hill of the position to the Luy de Bearn, with admirable discipline; and although Hill, marching by the parallel height, endeavoured to forestall them, and cut them off from the solitary wooden bridge over that stream which was five miles distant, Soult succeeded in carrying off his defeated army by one road and one bridge with the loss of only a few hundred men sabred or taken by the British cavalry.

It is incomprehensible that an army capable of so brilliant an achievement as was their retreat from the field should have allowed itself to be beaten by a force numerically inferior, occupying, as the French did, an admirable position for defence; the configuration of which should have enabled them with the utmost certainty to concentrate, for the defence of any given point, a greatly superior force

than the enemy could bring to the attack. It is difficult to understand how it happened that the attack of the 52nd, made after marching three-quarters of a mile over open ground and struggling through a swamp, was not met and overwhelmed before that regiment could reach the crest of the position.

Wellington's plan of attack was certainly in opposition to true military principles. He attacked a concentrated and superior enemy, strongly posted, on both flanks simultaneously. His two first attacks were separated by a distance of a mile and a half from each other, and were very weakly connected by one division at the Roman camp, while 12,000 combatants under Hill, in front of Orthes, could only support the remainder of the army by either a march of two miles to cross the bridge at Berenx, or by forcing their way over the bridge and through the town of Orthes; or Hill must ford the river, as he actually did, at a spot which removed him a mile still farther from the nearest British troops.

In fine, Soult held the centre with a superior force,



having short and easy access to every part of the circumference; while Wellington's attacks were directed against three several points of that circumference, distant from each other, the two extreme attacks being actually made at the opposite ends of the same diameter. How, then,

shall we explain this astonishing victory? Soult had sufficient troops to direct an overpoweringly superior force against Beresford on his



right, and yet to hold his ground against attacks made elsewhere. Hill with 12,000 men could be opposed at Orthes with less than half that number, the rest being withdrawn to support d'Armagnac by attacking the flank of the 6th division when it assailed the position of the latter; while Hill could not possibly have interfered unless he succeeded in forcing his way over the bridge and through the town. Admitting that he had succeeded, the operation must have taken time, and his success might have been too late to avert the defeat of the rest of the army.

#### THE BATTLE OF TOULOUSE.

(See Plan 3.)

The French position at Toulouse was probably the very strongest that was ever forced under conditions at all approaching to equality in numbers and discipline between the combatants.

The town was surrounded by a ditch and fortified wall. It was covered on the west side by the river Garonne, on the farther bank of which the fortified suburb of St. Cyprien, very strong, served as a *tête de pont* to the great bridge of the city.

On the north it was covered by the great canal of Languedoc, which joined the river below Toulouse.

On the east, the same canal bending to the south nearly at right angles to its northern front formed the protection. There were several bridges over this canal, two on the north front, two on the east front, and one at the angle; these were all strongly intrenched, and were moreover within point-blank range of the walls. On the eastern side also, forming a second line of defence beyond the canal, and parallel to it at the distance of 1,800 yards, flowed the river Ers, not fordable, over which there existed

four bridges. The space between the Ers river and the canal was filled by a range of strongly-intrenched heights (B), whose outer slope was very rugged; their fire commanded the passage of the Ers; and the space between their foot and that river was occupied by a marsh, rendered more difficult by artificial inundations.

On the south, the space between the canal and the Garonne was open and level; but the suburb of St. Michel furnished an advanced defence on that side: and at a short distance beyond the suburb commenced a range of heights called the *Pech David*, which bordered the Garonne for some distance up stream.

The natural mode of attack was on the west side of the city by the suburb of St. Cyprien, because in such an operation Wellington's line of retreat to the Adour would be covered. But both the suburb and the bridge it covered were too strongly fortified to be forced without an enormous sacrifice of men. Wellington therefore determined to turn the enemy's flank either above or below Toulouse, and either plan was beset with great difficulties; for it would be necessary to transport the greater part of the army over the Garonne, and yet to leave a sufficient force in front of St. Cyprien to guard his communications. The place was most easy of approach on the south; but the Arriège river flows into the Garonne on that side about nine miles from the city. If the British crossed the Garonne beyond the confluence of the Arriège, they would be obliged to cross that river as well, and to march down its right bank, in a country which the recent heavy rains had rendered impracticable for guns. If they passed the Garonne between the city and the confluence of the Arriège, Soult from the *Pech David* heights could fall on the head of their column while in the disorder of passing the river: failing in this, the French still had Toulouse

and its strong position to fall back upon, their retreat would have been secure on Montauban which was their natural line, and no decisive result would be obtained.

But the passage of the Garonne below the town was a different matter. In that case Wellington could attack the northern and eastern fronts, thereby intercepting the road to Montauban; so that if the French were defeated, the only retreat open to them would be southwards by Carcassone to join Suchet in Roussillon, where, having the mountains behind and the Allies between them and France, they could not subsist.

Wellington's first plan of attack, however, was directed against the south side. Hill attempted to pass the Garonne at Portel, below the confluence of the Arriège, but failed owing to the insufficiency of bridging materials.

Hill, after this failure, laid a bridge over the Garonne two miles above the confluence of the Arriège; crossed over with 13,000 men and 18 guns—the bulk of the army remaining to threaten St. Cyprien and to guard the communications; marched up the left bank of the Arriège nine miles, crossed that river, and attempted to descend on Toulouse by the right bank: but as success and safety alike depended on rapidity, and his guns being unable to move in the deep country, he returned by the same way he came and rejoined Wellington on May 1 at St. Cyprien after a loss of three precious days, which were well turned to account by the French in strengthening the defences of their position.

Wellington now determined to direct his attack against the northern and eastern fronts; but the northern front, though easy of approach, was impregnable; the bridges over the canal being there all very strongly fortified and within musket-shot of the walls. The real attack was



therefore to be confined to the eastern front; but this was to be seconded by a feigned attack on the north.

In the execution of his programme, Wellington threw a pontoon bridge over the Garonne fifteen miles below Toulouse on May 3, the high water in the river having prevented earlier action. Thirty guns were placed in battery on the left bank, and Beresford crossed with the 3rd, 4th, and 6th divisions, and three brigades of cavalry; but the river rising rapidly in his rear, the bridge was taken up to prevent its being injured, and communication with Beresford was annulled for the time. It was not until the 8th that the falling of the waters permitted the bridge to be restored; after which, leaving Hill in front of St. Cyprien with two divisions, Wellington followed Beresford with the Spaniards and Portuguese artillery, and took the command in person.

Instead of then marching on the northern front of Toulouse by the country lying between the Garonne and the Ers rivers, he approached the latter, sent Beresford across with the 4th and 6th divisions and the cavalry, retaining with himself the 3rd division and the Spaniards, and then marched up both banks of the Ers, his force divided by that river, which was not fordable. It became therefore essential to secure as soon as possible the bridge of Croix d'Orade (A in plan) as a means of communication, which was effected by a dashing exploit of the cavalry.

Meanwhile, Hill remained with his two divisions at St. Cyprien; but, besides these, the light division was still on the farther side of the Garonne. To shorten his communication with Hill, Wellington directed the removal of the pontoon bridge to Seilh, five miles nearer to the city. This was only accomplished on the night of the 9th; at two o'clock on the morning of the 10th the light division passed the bridge at Seilh; and at six o'clock the same

morning the army was put in motion to fight the battle of Toulouse.

*The French Position.*

Soult's army occupied the interior of a circle, on the circumference of which his enemies were widely extended—or, it would be more correct to say, the interior of a square. Three fronts of this square were embraced in his dispositions for the battle.

The left front consisted of the fortified suburb of St. Cyprien, which covered the great bridge of the town, and which was so strong that it could safely be defended by less than half of the numbers which would be required to attack it with any hope of success. Thus, although two divisions, those of Taupin and Maransin, were posted there, they were as much available for supporting other parts,\* by reason of the directness of communication, as an ordinary reserve on a field of battle; while Hill, on the other hand, who was opposed to them with 13,000 men, could not possibly reinforce any other part of the Allied line without forcing his way across the bridge and through the French army. Here then was one great advantage possessed by the French at the outset: with 5,000 men they could oppose and neutralise the action of 13,000 enemies in this quarter, thereby gaining an accession of 8,000 at some other point where the contest might be equally balanced, and where that accession might turn the scale in their favour.

The centre front of the position was formed by the canal with its fortified bridges, extending from the Garonne to the bridge of Matabiau (H), and was defended by Daricau's division, which held the bridges H, K, L, with its right, centre, and left respectively.

The right front consisted of the line of heights, B, which presented two distinct platforms, on both of which strong

redoubts had been constructed, one of them flanking by its fire the approaches to bridge  $\Pi$ . Besides these, were breastworks running along the crest of the heights parallel to the Ers river; the fire from these swept all the ground between them and the river; the low ground between the stream and the foot of the heights was marshy, and rendered more difficult by inundations.

The range of heights,  $B$ , was about two miles long, and an army attacking in front would have to pass the Ers under fire and advance through the marshy ground to assault the ridge and the works on the summit; and if they should carry these, the assailants would still find a second line of defence behind them in the canal, over which there were on this front two bridges; viz.,  $E$ , defended not only by its suburb, but also by two redoubts, Sacarin and Cambon, constructed on a range of hills stretching across the road of approach; and  $F$ , covered by a tête de pont.

That part of the Ers river which was embraced within the sphere of tactical operations, was spanned by the four bridges  $A$ ,  $C$ ,  $D$ ,  $X$ , of which  $A$  was in the possession of the Allies; the remainder were mined by the French so as to be suddenly destroyed.

This formidable front was occupied by Harispe's division, the right of which was facing the bridge  $D$ ; the centre, strengthened by cavalry, faced bridge  $C$ ; the left looked down the road towards the bridge  $A$ . Behind the centre, d'Armagnac's division was posted on the reverse slope of the heights in front of the canal; behind the left was Villatte's division, in the neighbourhood of the canal bridge  $\Pi$ ; the angle formed by the meeting of the northern and eastern canal fronts was covered by a detached hill within cannon-shot,  $G$ , which was occupied by St. Pol's brigade of Villatte's division.

To recapitulate. Two divisions guarded the western



front of St. Cyprien; one division occupied the line of canal forming the northern front; three divisions were apportioned to the defence of the formidable eastern front. The general reserve manned the walls of the city, having easy access to every part of the line of battle.

It would be difficult to imagine a stronger position. Its development was about five miles in extent, and it was occupied by 38,000 men, giving an average of nearly 8,000 men to the mile; but as many parts of the line, being formed of impassable obstacles, needed no troops at all, the French were enabled to be proportionally stronger at those points where an attack was possible. They had, moreover, upwards of eighty guns, of which twenty-four were guns of position of large calibre. Occupying the centre, while the enemy's attacks were about to be made at points distant from each other along the circumference, Soult's line of march from right to left, to reinforce the defence either against Wellington on one side or Hill on the other, was a perfectly straight line, leading from the heights, B, through the town and over the great bridge.

The great bridge, the fortified bridges over the canal, the intrenchments on the heights, B, were all so many tactical points. The detached hill, G, was an advanced tactical point of great importance, since it covered the angle\* formed by the meeting of the northern and eastern fronts, and being within cannon-shot, would enable the enemy, if he obtained possession of it, to enfilade the neighbouring heights obliquely with his artillery.

It has already been stated that the only line of retreat which Wellington's method of attack left open to the French was southwards, by the Carcassone road.

At the risk of appearing tedious the French position

\* It has already been explained that an angle is in its nature weak. See page 144.

has been described in rather minute detail; but the battle and its attendant circumstances were so exceptional and furnish such useful lessons, that the time and attention of the reader will not be wasted by the study of them.

We now return to the Allies, whom we left marching to the attack.

Wellington's force consisted in all of 52,000 combatants of whom 7,000 were cavalry, with 64 guns, and their general situation was as follows:—

Beresford, with the 4th and 6th divisions, three batteries, and Somerset's and Vivian's brigades of cavalry, was approaching the bridge, A, marching up the right or eastern bank of the Ers river.

Frere, with the Spanish division, 9,000 strong, and the Portuguese artillery, and followed by Ponsonby's heavy cavalry, marched parallel with Beresford up the left or western bank of the Ers river.

On the right of Frere, the light division under Alten directed its march on the canal bridge, H.

On the right of Alten, Picton with the 3rd division marched in two columns on the bridges K and L.

These two last divisions were connected by Bock's German cavalry.

On the extreme right was Hill, whose left, as the crow flies, was only a few hundred yards from Picton's right; but practically the distance between them was a full day's march, the pontoon bridge at Seilh being ten miles below Toulouse.

Wellington's pontoons being all on the Garonne, and the river Ers being unfordable, it was necessary that Beresford's force, in order to come to close quarters with the enemy at all, should pass the bridge A. And in order to carry the range of heights, B, they would be under the necessity of making a flank march under fire between the river and

the heights for a distance of two miles for the head of the column, and afterwards to form line to the right for attack—an undertaking, when the strength of the defences, the difficulty of the ground to be marched over, and the qualities of the French soldiers and their commander are taken into account, surely as formidable as was ever attempted in war. Indeed, so desperate did it appear, that Soult's dispositions had been purposely made to impose it on his adversary. For this he had mined all the bridges on the Ers above A, leaving the latter intact, and so facilitating a movement between the river and the heights, while he impeded a march up the eastern bank by sending half his cavalry over to dispute the passage of the numerous streams in the deep country that bordered the river.

Wellington's plan was, that Beresford, leaving Vivian's cavalry to mount the eastern bank of the Ers, should pass that river at A with the rest of his force, and turning suddenly to his left should march between the river and the heights until the head of his column arrived opposite the French right. He was then to form line and attack the heights along their whole length. This was to be the real attack from which alone any positive success could be anticipated; and to protect this dangerous operation Wellington made the following dispositions:—

Hill, on the extreme right, was to attack St. Cyprien, increasing or abating his efforts according to the progress of the battle on the other side of the Garonne.

Picton and Alten were to make demonstrations against the canal bridges in their front, but not to risk the loss of many men unless a desperate effort were needed to create a diversion in favour of Beresford. Their task was in principle the same as Hill's.

Frere's Spaniards were to be more actively engaged; for it was necessary that St. Pol's French brigade on the hill, G,



should be driven away, and the hill occupied by the Allies, before Beresford's column could safely venture to cross the bridge A. Frere, therefore, was to attack and carry the hill, to plant there all the Portuguese guns to batter the heights, B, and to cover Beresford's movement across the bridge; while Ponsonby's dragoons following close, were to connect Frere's left with the rear of Beresford's column.

So far all was executed according to programme. The Spaniards were allowed to occupy the hill, G, without resistance beyond a cannonade in their approach, St. Pol being withdrawn to the main position behind.

Beresford, having passed the river, marched from A in three columns abreast, preceded by Somerset's light cavalry brigade. As he advanced, he found the marshy ground so deep that he left behind his artillery, fearing to engage it in that deep and difficult country under the fire of the enemy.

Beyond the Ers on his left, Vivian's cavalry drove the French horsemen back with loss, and pursued so vigorously that they nearly seized the bridge D, which the French passed and destroyed with difficulty at the last moment. Proceeding up the river, however, Vivian's troopers gained the bridge of Montaudran, X, higher up.

Meanwhile, Beresford being yet in march; Frere, who had received orders to attack the great redoubt on the flank of the heights, B, so soon as—but not before—Beresford's column had completed its flank march and wheeled into line for attack—Frere, becoming impatient, led his Spaniards to the assault of the redoubt. These advanced gallantly under the fire from the heights which rapidly thinned their ranks; but at length coming within the line of fire from the bridge H, which smote them full on the flank, the leading ranks broke their order, and rushing

wildly forward, jumped for shelter into a hollow road in some parts 25 feet deep, which covered this part of the French intrenchments; but the left wing and second line, excepting one battalion which sheltered itself behind a bank, ran back in disorder. The hollow road was raked from end to end by a battery at H, which had been constructed for the purpose; and the horrible carnage which was occasioned thereby among the crowds helplessly entangled in this deep grave, was increased by the French troops, who came leaping out of their works on the hill, and lining the edge of the chasm, poured an incessant stream of shot on the heads of those below. A second attempt by those Spaniards who had fallen back, failed: the country was covered by their fugitives, and with French in pursuit; and the danger was only checked by covering the panic-stricken troops with Ponsonby's cavalry and the reserve artillery, and by bringing up a brigade of the light division, which, wheeling to its left, menaced the flank of the victorious French who then retired to their works.

In another quarter, Picton, who had converted his demonstration into a real attack against the bridge L, had been repulsed with a very severe loss; and on the other side of the river, Hill, who had carried the outer line of defences, could make no impression on a second which was shorter and stronger than the first.

The crisis of the battle now approached, and Wellington had no reserves to support it; for the light division and heavy cavalry, which might but for Picton's repulse have served for that purpose, must necessarily be retained to cover the rallying of the Spaniards, and to protect the artillery consisting of Beresford's, the Portuguese, and the reserve pieces, which had no other support, and which had been keeping up an incessant fire against the French works.

On the other hand, the successes he had met with, and the strength of the second line of intrenchments at St. Cyprien, enabled Soult now to draw from that quarter Taupin's whole division and one of Maransin's brigades, to reinforce his battle on the heights, B. He was thus enabled to collect for an offensive movement against Beresford 15,000 combatants, without in any way weakening the defence of his intrenchments on the heights or on the canal.

Beresford's force, originally less than 13,000 men, was by this time cruelly reduced, as it made its slow and difficult way for two miles through a deep marshy country, crossed and tangled with watercourses. 'For, sometimes moving in mass, sometimes filing under the French musketry, and always under the fire of their artillery from the Mont Rave, without a gun to reply, the length of the column had augmented so much at every step from the difficulty of the way, that frequent halts were necessary to close up the ranks. Between the river and the heights, the miry ground became narrower and deeper as the troops advanced; Berton's cavalry was ahead, an impassable river was on the left, and three French divisions, supported by artillery and horsemen, overshadowed the right flank! But Fortune rules in war!' \*

Can it be doubted for a moment, that had the French fallen on vigorously while the British troops were still in column of march, as they should have done, directing one attack against the head of the column of march, another against its flank, the battle of Toulouse would have been a signal French victory? But no vigour was displayed by the French. Beresford's columns were allowed to form line and to become assailants, and by their astonishing fighting the British infantry gained

\* Napier.



the whole of the southernmost plateau of the heights, B, with its redoubts; the French, with great disorder, seeking shelter in the works of Sacarin and Cambon, in front of bridge E.

The following is an extract from a letter written by Captain Ford, of the 79th Highlanders, who was present with his regiment in the 6th division:—

‘After crossing the river Ers, that excellent officer General Clinton assembled the commanding officers of regiments, and gave particular directions to those who should be on the right flank of the 6th division to be prepared for an attack of cavalry—a timely and valuable precaution, for we were on the right. After crossing the Ers river we advanced by threes in double time in a line parallel to that river—and a fatiguing run it was—to avoid unnecessary exposure to the fire of the Calvinet redoubt, from which General Cole’s division (the 4th) had previously suffered severely. The 79th were on the right as I have said, when a body of French cavalry appeared, debouching from one of the deep farm-roads which crossed the Plateau de Calvinet, and leisurely marching towards us. Lieutenant-Colonel Neil Douglas immediately formed a hollow square, ordered out Ensign Balfour with the regimental colour to the front as a directing point, and then gave the word “March.” We thus continued our march in the original direction. To see Balfour some distance in front marching erect, pointing his toes with as much precision and care as if at a formal parade in England, with the colours inclined forward, which required strength of arm (for we had no shoulder-belts to support them), and the French leisurely walking their horses towards us, was a *beautiful sight*, and reminded me of what I had read of the days of Marlborough when such slow movements were common. The square was halted,

Balfour called in, and a volley fired by the right face; and the enemy immediately wheeled about and slowly retired, without loss to either side.'

If Beresford's attack had failed his divisions would have been destroyed or taken, for there could be no retreat, and Wellington's junction with Hill would have been seriously endangered. That junction could have been effected only by both Hill and Wellington falling back to the bridge at Seilh, and this movement of Hill's would have left Wellington's communications entirely at the mercy of the French. There can be little question that this, which is only supposed, would have been the real result of the battle, if Soult had been as fortunate in his subordinates and in the quality of his troops as was the English commander.

Is the latter then to be blamed for fighting, as he did, in opposition to all the recognised rules of war, and for running so appalling a risk? By no means! Success justified his temerity. Wellington could not remain inactive before Toulouse; yet Soult had chosen his position with such skill that his adversary could not attack at all without violating military principles; and the English general calculated rightly on the fighting qualities of his island infantry, enforced as these were by the exulting confidence of his own troops and the discouragement of the French, which resulted from the recent experiences of Vittoria, Nivelle, St. Pierre, and Orthes.

But the battle still remained to be won. Soult led a brigade of d'Armagnac's division, which had remained in reserve, to the works of Sacarin; and a part of the reserve moved out of the town to defend the bridge-head r, which Soult feared Beresford might seize, and which was moreover threatened by Vivian's hussars, which had crossed the bridge x. The whole of the plateau of Calvinet with its

formidable redoubts, still remained in the possession of the French. Their line of battle in this part of the field presented three sides of a square, and was very strong. The right face extended from Sacarin on the right to the two great redoubts on the southern end of Calvinet plateau; the centre face extended along the ridge, covered by breast-works, to the great redoubts on the northern end of the same plateau; the left face extended from these last-named redoubts to the bridge-head (H) over the canal. Each face was thus about one thousand yards long, and the angles were defended by formidable works. The bridge-head at H on the one flank, and the works of Sacarin on the other, secured a safe retreat in case of disaster behind the canal, which, with the walls of the town and suburbs, offered a sure refuge. Within this space were concentrated three French divisions and one brigade of cavalry. And Wellington's means seemed inadequate to terminate the battle by a victory; for the light division and heavy cavalry were the only troops which had not been seriously engaged, and he could not prudently thrust them into the fight for fear of being without a reserve in the event of a repulse. The final stroke must therefore still be made by Beresford's troops, and of these only by the 6th division; for the 4th division was necessarily employed to hold in check the French troops at bridge R, and at Cambon and Sacarin.

The 6th division previous to the attack is thus accounted for:—

Lambert's brigade was established across the northern extremity of the St. Sypière plateau, and thus threatened the troops and works on the Calvinet plateau in flank.

The Highland and Portuguese brigades were on the right of Lambert's, in the road leading from bridge C, which being hollow protected them from the French fire. These two brigades, at the signal, scrambled up the steep



banks of the road, and as they got out wheeled to their left by wings, ascended the heights by the slope facing the Ers, and carried the great redoubts at that extremity of the heights, as well as the neighbouring breastworks. These, however, excepting one redoubt held by the 79th, were retaken and again carried—Lambert's brigade supporting the other two—and finally were held by the British; and Beresford, who only at this time, 4 P.M., received his artillery which he had left behind him after first crossing the Ers, was preparing for another effort which should sweep the French from the remainder of the plateau, when Soult, conscious that it was no longer tenable, withdrew his army over the canal about 5 P.M., still holding the advanced works of Sacarin and Cambon: and thus ended the battle of Toulouse.

### *The Battle of the Alma.*

The photograph, so to speak, which is presented by Kinglake's History, of the battle of the Alma, enables that operation to be discussed on more certain data than before the publication of that book.

The Russian army under Prince Menschikoff occupied a range of heights bordering the south, or left, bank of the Alma river. Near its mouth, these heights rise directly and precipitously from the edge of the stream to an elevation of 350 feet: to an observer ascending the course of the river, they gradually recede, and terminate at length in a height called the Kourgané hill. The slope of this hill towards the river is long and easy to a distant view, although its surface is in reality broken up by ravines and steep acclivities and jutting knolls; towards the east it subsides gradually into a smooth and open plain, well suited for cavalry.

The Russian position may be described generally as extending from the Kourgané hill on the right, to the sea on the left; although in fact, so far as the disposition of troops was concerned, it terminated two miles from the sea. The Russian general was influenced in this arrangement by the apprehended loss troops posted within two miles of the sea would be exposed to from the fire of the English and French men-of-war at the mouth of the river; partly also, it is probable, from the idea he adopted, on a hasty and incomplete survey of the localities, that the nature of the ground in that part was such as to render the ascent of the heights an impossibility.

The Russian force consisted of 39,000 men—3,400 being cavalry—and 106 field-guns, besides 14 heavy guns of position brought up from Sebastopol. The distance from the extreme right to the sea was five miles and a half; but as their line stopped at the distance of two miles from the sea, the actual ground occupied by the troops was about three miles and a half in extent, giving an average of 11,000 men to the mile.

The summit of the heights occupied by the Russian army formed an almost continuous plateau: consequently, their communications behind the crest of the position were perfectly open and easy. On the other hand, the ground, which sloped down in their front with increasing steepness from the right towards the left—at first smoothly like a glacis—was so broken up as the stream was approached, that even supposing the river to be passed by an enemy, his troops would find their movements cramped and impeded, and communication between their several parts interrupted, by the capricious irregularity of the surface. This was a great disadvantage to any force advancing to attack in front, but it was very seriously increased by the nature of the ground bordering both sides of the river; for

along the north bank there stretched a perfect labyrinth of houses, gardens, and enclosures, with here and there a village; and the south or Russian bank of the stream rose precipitously from the water's edge to a height of from eight to fifteen feet. Thus, troops marching to attack the position must make their way through the enclosures in line, or else march in dense columns along the roads: they could not prudently do the last, because for some distance before reaching the river they would come within the perfectly easy range—ascertained by trial and fixed by landmarks—of the Russian guns. They must therefore adopt the line formation, which must inevitably be seriously broken by the obstacles: after passing the enclosures, the order of march would be further disarranged in crossing the river; and after that, by the necessity of scaling the perpendicular banks—to effect which many men would necessarily crowd to the same spot, to mount one after another.\* The Russians had taken measures to embarrass still further the approach of the Allies to the Alma in military order by setting fire to the village of Bourliouk, which obliged the British troops in their advance to diverge to the right and left, thereby creating a large interval in their line.

The weak point of the Russian position was the unprotected left; for although the country was perfectly favourable to a movement of the Allies to turn his right, Prince Menschikoff considered his superiority in cavalry would be sufficient to deter them from such an endeavour, as in fact it was.

The line of retreat was perfectly open and easy, there being no impediment to the march of troops, which was not limited to the roads, although these were numerous and the great causeway to Sebastopol was excellent.

\* These remarks apply more particularly to the ground over which the English advanced.



The only part of the position which was artificially strengthened was the Kourgané hill, and that to a trifling extent; two breastworks having been constructed, one on the right shoulder of the hill, the other on the front slope, both midway down the descent. Behind the last were placed the fourteen heavy guns. In front of these the ground sloped gently for some distance, like the glacis of a fortress.

The Allied force which was about to attack this formidable position amounted in all to 63,000 men—of whom 1,000 were cavalry—and 128 guns, viz. :—

English—25,000 infantry; 1,000 cavalry; 60 guns.

French—30,000 infantry; . . . . 68 guns.

Turks — 7,000 infantry.

The French and Turks, both under Marshal St. Arnaud, were on the right; their right flank protected by the sea and by nine war-steamers; their left, by the English army.

The French moved first. One division, Bosquet's, with the Turks, was ordered to scale the heights which overlooked both the Alma and the sea. This was accomplished without either difficulty or resistance; for as we have seen there was no enemy in that direction to oppose them. Yet this force which then stood on the same plateau with the Russian army made no attempt to come to close quarters with their enemy, which they might have done in the most advantageous possible manner to the general result of the battle by attacking his left flank. The consequence was, that this force, as it did not occupy any of the enemy's troops, was lost to the assailants during the day.

A second French division, Canrobert's, crossed the Alma without opposition at the village of Almatamack, and mounted the heights without difficulty. On reaching the crest of the heights, however, it made no attempt to move forward, but clung to the edge of the slope, and spent the

hours during which the real battle was raging far away on the left, in exchanging long shots with a Russian column which was sent against it.

The remaining French division, that of Prince Napoleon, which should have supported Canrobert, was not engaged at all; and in this way it happened that the three French divisions, numbering 30,000 men, and 7,000 Turks, with 68 guns, were held in check the whole day by 13,000 Russians and 36 guns; while the English army, consisting of 26,000 men, was opposed to a Russian force of 26,000 men and 84 guns; thus completely abdicating the advantage of superior numbers in favour of the enemy.\*

Turning now to the English operations, it was evident, from the nature of the ground to be passed over on both sides of the stream, and from the disposition of the Russian guns, that the troops employed in assailing the Kourgané hill and the adjoining parts of the position—all, in short, that fell to the share of the British troops—must inevitably advance at a great disadvantage and suffer a very heavy loss, unless the attention of the enemy could be called away to some other quarter by operations which should disquiet him for the general safety of his position. It was this service Lord Raglan expected from his French allies; and it was the expectation of it which induced him to consent to their proposed turning of the enemy's left. He naturally expected that the French, after establishing themselves on the plateau, would endeavour to make some impression on the Russian left flank. Then, when the French troops—two complete divisions and the Turks, in all 22,000 men—who had mounted the heights, were approaching that flank, and not till then, the English force should have advanced to the attack. Such was Lord

\* Kinglake's History.

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Raglan's intention. In this manner the two attacks would have aided each other in the best possible way. The threatening movement of the French, by compelling the enemy to a new disposition of his force by throwing back his left, must of necessity call off a portion of the defenders of the Kourgané hill; and the mere apprehension of a flank attack would be calculated to render the defence of that part unsteady. A vigorous assault then made by the British on the Kourgané hill would encounter a comparatively weak opposition; and that hill once carried, the retreat of the whole Russian army would become imperative.

But as we have seen, the French did not advance beyond the edge of the plateau: Lord Raglan therefore after long waiting, unwilling that the English should have the appearance of being less prompt than their allies, and urged thereto besides by repeated messages from St. Arnaud, at length gave the order to advance. The result was, that the Kourgané hill and intrenchments and the neighbouring heights were ultimately carried by sheer bulldog fighting, which could not, however, have been successful but for the superiority of fire possessed by the British two-deep line formation over the Russian columns.

Before the battle Marshal St. Arnaud had proposed to Lord Raglan, that while one French division with the Turks mounted the heights to turn the enemy's left, and the remainder of his force held in check the centre, the English army should make a flank movement round the Russian right, attack their flank, and intercept their retreat. Lord Raglan declined the part of the programme assigned to him, because its execution required that his army should move over ground which was very favourable to the action of cavalry, in which arm the Russians outnumbered him by three to one. It is doubtful, however,

if the reason assigned was the real motive of Lord Raglan's refusal. St. Arnaud's proposal was contrary to military principles, because a great superiority can alone justify the attempt to turn both flanks of an enemy who holds a strong central position.\* Now, the Russians were only slightly inferior in the number of guns—120 to 128—while they were superior in weight of metal; they were very superior in cavalry, and their inferiority in infantry was fairly compensated by their advantages both as to position and concentration. This was probably the real reason why the English commander refused to undertake a turning movement simultaneously with that of the French; and there is little doubt, if Lord Raglan had not been fettered by the alliance—that is to say, if the whole force had been under his own command—that the battle would have been very differently fought.

It is easy to form a judgment after the event; nevertheless it is useful with a view to future guidance; and the question now proposed for consideration is,

What would be the best mode of attacking another Alma position, so as,

1st, to draw the fullest advantage from the circumstances which favoured the Allies?

2nd, to obviate the peculiar advantages possessed by the enemy, and the measures he had adopted to strengthen his position?

3rd, to inflict on the enemy the greatest possible amount of loss, at a minimum of cost to the Allies?

With respect to the first part of the problem, it is to be remarked that the ships of war were actually of small account in the battle; for although the fear of their guns prevented the enemy from extending his line to within a distance of two miles from the sea, this was not altogether

\* See page 198, *on the attack of a position.*

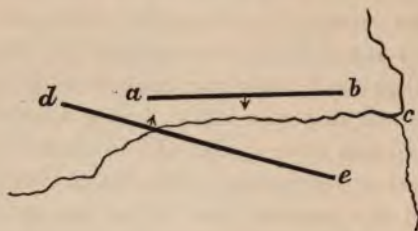


a desirable effect to produce, for the Russian force was thereby concentrated within more easy reach of the direct line of retreat on the Katscha, which it should have been our object to intercept; and another consequence of this concentration was, that they were enabled to bring a larger force than they could otherwise have done to oppose the only real attack that was made during the battle—viz., that of the British force against the Russian right.

Now, if the mere appearance of the ships on our flank kept two miles of the position held by the enemy clear of his troops on the left bank of the Alma, their presence or their fire would equally protect the ground on the right bank, and along the brink on both sides of the stream, to at least an equal degree; so that this extent of ground being left unoccupied by troops, the Allies would be at liberty to push their line two miles beyond the point actually marked by their left. They would thus cover an additional two miles of ground; yet the extended line would be virtually as strong as the more contracted front actually displayed. The advantage of being able to oppose an equal front to an enemy, and yet so greatly to outflank him, is too obvious to require explanation.

The power so to outflank him would enable us to fulfil the second condition of the problem above stated, by a turning movement round the enemy's right flank, executed coherently and in accordance with scientific principles by the whole army, which would render abortive his advantages of position and defensive preparations. Thus, if in the diagram *a b* represent the Russian army, and *c* the mouth of the Alma, the general relative formation which the Allies might adopt is represented by *d e*. And if the line *d e* be supposed to be pushed forward parallel to itself against *a b*, that represents the mode, mathematically speaking, in which the Allied line would come into action, the flank *a* being first

reached, and the attack taken up in rapid succession. If the Russians stood to receive such an attack in their ori-



ginal formation, *a b*, they must inevitably suffer a great disaster, and a large portion would be taken, since the Allies would have the power of intercepting the retreat of their right wing. But such a movement by the Allies would, of course, lead to new dispositions and a change of front by the enemy, whereby his peculiar advantages of position would at once become neutralised; and the loss which must have been incurred—was actually incurred by the British—in forcing the position by its front, avoided. But supposing the Russians to change their front so as to meet the Allied attack in parallel order, they would fight with the sea in their rear, and their line of retreat in continual danger; and it is by intercepting the retreat of a beaten enemy that the greatest possible amount of damage is to be inflicted upon him, in fulfilment of the third condition of the above problem.

The solitary objection that can be urged against this plan as above sketched in outline, is, that the Russians were superior in cavalry, and that the ground beyond their right flank was peculiarly favourable to the action of that arm.

And, first, let it be noted that in the attack as actually made, there was a constant expectation that the enemy's

cavalry would act against our left flank after passing the river; so that two regiments were kept in square on that flank—unsupported by our own cavalry, be it observed—and prevented from supporting the troops engaged with the enemy by that apprehension alone. Now, if the Russian cavalry had made such an attack, the effect was likely to be far more serious on troops whose order was broken by scrambling first through enclosures, afterwards a river, then scaling a high bank, and withal without cavalry support, than if it were made on troops marching in perfect order over an open plain. For it is of course supposed that the enemy's cavalry would, according to the dictates of common sense, have swooped round from the right rear of the position, and down upon the Allied infantry while breathless and disordered, before they could have time to assume a correct formation.

But can it be seriously maintained that our flank would have been in any danger from the 3,200 Russian troopers, or that they would have had any power to stop our movement? The experience of Napoleon's infantry squares in Egypt, of Fuentes Onoro and Toulouse, all forbid such a notion. At the last place, the Duke of Wellington, trusting to the fighting qualities of his island infantry, made a flank march along the foot of the heights occupied by the French, and between those heights and the river Ebro, with infantry alone, exposed all the time to cavalry attack in flank; the battalions on the exposed flank marching simply in square.\*

The retreat of the light division over the plain of Fuentes Onoro has been already more than once adverted to in this book; and it is mentioned here, not as an operation to be imitated, but to show how in circumstances apparently desperate the steadfast bearing of a disciplined

\* See page 234.



infantry may bear it harmless. In that instance the light division, supported by only 1,200 British cavalry, marched two miles over a plain exposed to attack from 5,000 French cavalry, 15 guns, and a superior force of infantry. Again, at Quatre Bras, 20,000 infantry, without cavalry and without guns, withstood for several hours 22,000 French, of whom 3,000 were cavalry, with 46 guns.

To return to the Alma. Admitting for the sake of argument that the Russian and English cavalry were equal in quality, it is certain that 1,000 troopers acting with two battalions of infantry might march to the world's end if the only opposition to be encountered was from 3,000 cavalry: and if it be objected that the Russians might also support with infantry, it is answered, that in that case the Russian infantry must quit its heights and engage on the plain, where our superiority in that arm must tell. We could always spare several battalions which should act in concert with our small cavalry force to guard the flank of our lines of infantry, and yet oppose a superior force of infantry to any the enemy could bring against us: and for artillery, from the nature of the case we should have the greater number of guns on the advanced flank; while the enemy would be obliged to maintain guns along his general line, to repel the attack which would be threatened, and might be made at any moment, by the different echellons of our general line.

Judging then after the event, the plan for fighting the battle of the Alma should be somewhat as follows:—

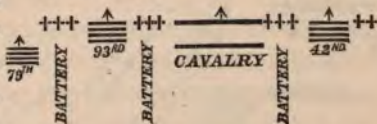
A reconnaissance sent forward from the Bulganak, where the Allies encamped the night before the action, would make us acquainted with the general nature and extent of the enemy's position, as well as of the unfavourable ground over which our troops must approach to it. The naval officers who had reconnoitred that part of the

position nearest to them, from the sea, could inform us that the ground on our side of the Alma drooped towards the stream in a smooth, open, and easy slope, on which the guns from the ships could play with the fullest effect; also that, although the heights or cliffs on the enemy's left would render an attack on that part of the position difficult and hazardous if firmly defended, the same obstacles which would impede our approach in that quarter would render it difficult for the enemy to descend from his elevation to act in the plain beyond the river.

On these data the operations for the following day might have been arranged as follows:—

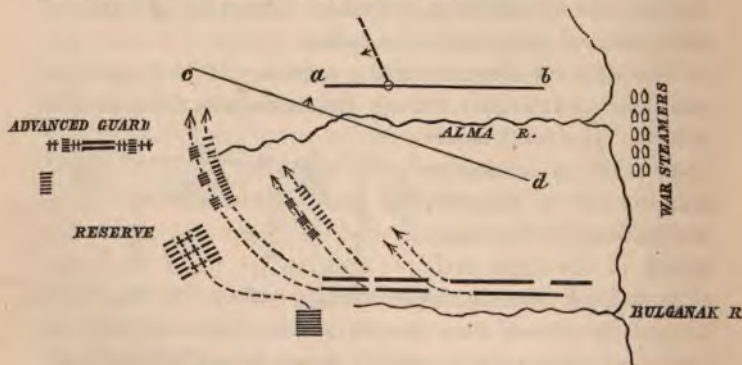
The army to march from its camping-ground on the Bulganak by its left; that is to say, the left being in front and guide to the remainder, but preceded by an advanced guard composed of the 1,000 cavalry and the Highland brigade, with two batteries—the infantry marching in quarter-distance columns. The order of battle of the advanced guard is shown below.

The duty of the advanced guard would be to protect the flank of the army during its movement from cavalry attack. The army would march off in successive echellons from the left, the leading echelon composed of the light division in first line in open column, and of the brigade of Guards in second line, marching for greater security in battalion columns at quarter-distance, to protect the flank of the line of march. The second echelon would be formed of Evans's division in first and England's in second line in similar order; and so on with the French divisions in succession. The British reserve, consisting of Cathcart's division and three batteries, would march in two parallel



columns, each of one brigade in a mass of battalion columns at quarter-distance, with the guns between them. The place of the reserve during the flank movement to be in third line immediately to the left rear of the first echelon. Of the four batteries which would remain to the British, two to accompany each echelon. In the accompanying diagram, the march of the echelon is shown, with the relative positions of the advanced guard and British reserve:  $cd$  represents the general line which it is designed to assume as the object of the movement;  $ab$ , the Russian front. It is clear that, by reason of the distance from the enemy of the retired flank  $d$ , it would be possible safely to withdraw at least one French division to reinforce the reserve.

This plan has the advantage of threatening the Russian line of retreat, at the same time that our own by coast-line to Eupatoria is completely protected.



As soon as the line should be formed in  $cd$ , the British first line to attack in the direction shown by the arrow-head. The Russians would throw back their right to meet this, thereby forming an angle at  $o$ , which must always be weak unless it rests on some strong ground; and this angle



would be attacked by the French, while in the supposed case of the Russians standing to fight we could continually outflank them.

Although the part assigned to the cavalry is essentially defensive, and its movements must in a great degree be regulated by the position of the infantry battalions of the advanced guard, it would not on that account be debarred from activity. Opportunities for a charge would occur against the enemy's squadrons (if they should venture to charge the squares) when retiring in disorder from the fire of the infantry. Line against line even, the smaller force would have equal chances in a charge: it would be after passing through the enemy's line that their danger would begin, for then they might be assailed in flank by fresh squadrons held in reserve for the occasion. In acting against a superior cavalry force, this possibility—nay, certainty—should always be present to the mind of the cavalry officer: his troopers must be kept always well in hand, and a charge under such circumstances should not be pushed beyond the success of the first shock, the successful squadrons retiring at once to reform under the protecting ægis of the squares.

At the battle of Albuera, Harvey's brigade of the 4th division, acting with 1,000 British cavalry and a battery of horse artillery, held in check 4,000 veteran French cavalry under Latour Maubourg, who threatened the rear of Beresford's position; and Napier says that, although Latour Maubourg was blamed for having accomplished nothing, it was unjustly, *'because no force of cavalry, if unsustained by infantry and artillery, can make a serious impression against the three arms united.'*

## CHAPTER VIII.

## ON RETREATS.

IT is not without reason that it has been the custom to accord the highest praise to a retreat successfully conducted in the presence of a superior enemy, for such an operation is probably the most dangerous and difficult in war.

One great disadvantage, almost the greatest, with which a general has to contend in this case is, the extent to which the *morale* of his troops suffers in a retrograde movement, especially when pursued closely by an enemy. So long as a soldier has his face to the foe, whatever may be the danger, he sees it clearly; but men become infinitely more uneasy when their backs are turned to an impending danger which the faculty of imagination magnifies out of all proportion.

A retreat is undertaken under one of the three following conditions :—

1. On the approach of an enemy, before he comes actually in presence.
2. By one of two armies which have been facing each other in a watchful attitude.
3. By a beaten army from a field of battle.

In the first case, if retreat is necessary it should be undertaken early, during the approach of a hostile force; so that, by placing a considerable distance between the

rear of the retreating column and the advance of the pursuers, the march of the former may be as little molested as possible.

In the second case, it must be the object of the general to obtain the same result by quitting his position secretly, so as to secure a long start. Here stratagem is peculiarly applicable, the object being to deceive the enemy into the belief that his opponent is still in his front for as long a time as possible after the latter has decamped. It is needless to enter into any details of the manner of effecting this object. The inventive genius of the general must supply the means, drawn from the actual relative circumstances of the two armies, and especially from his knowledge of the character of the adversary with whom he has to do. The armies of the Southern Confederacy have on several occasions illustrated this in a striking manner, although the proneness of the Northern generals to run blindfold into the most palpable snares prepared for them, diminishes, no doubt, the credit which attaches to the success of the former. The first retreat from Manasses, where the two armies had been facing one another for months; Beauregard's retreat from Corinth; and the evacuation of the lines of York-town on the 'James' peninsula; may be cited as examples where the whole of the material, the sick, and the baggage of the Southern armies were withdrawn in safety from before a superior force. On the other side, General Burnside must receive credit for having extricated his army from a very dangerous position by withdrawing it across the Rappahannock, after the disastrous defeat of Fredericksburg, without further loss; and although probably that operation was in its complete success only rendered possible by the nature of the weather under cover of which it was effected, its orderly and rapid execution manifests the existence of



higher military qualities, both in general and troops, than was to be looked for from their antecedent history.

In the third case, where a beaten army retires from a field of battle, the difficulties and dangers are far the greatest: for defeat usually implies some confusion in the beaten army; and the dispositions necessary to cover the retreat, however carefully they may have been matured in the mind of the general, are liable to be disconcerted by events. There is no military rule more urgent than that which requires a general, before engaging in a battle, not only to provide safe avenues of retreat for his troops, but also to be prepared in his own mind with a clear, well-reasoned plan for protecting the retreat of those divisions which have been engaged, by an effective rear guard composed of troops comparatively, at least, fresh. With this view, the ground in rear of the flanks and centre should be carefully studied, as well as behind any particular portion of the line of such tactical importance that the success of the enemy at that point may render the general position untenable.

In anticipation of the possibility of retreat, the first precaution is to remove carefully all the *hamper* of an army in the shape of trains, to at least the distance of a full day's march from the rear of the position. The necessity of this maxim is enforced by the remarks on *lines of retreat* in a previous chapter,\* and by the examples of Ramillies and Vittoria there cited.

It is ordinarily the reserve on which a general would depend for covering the retreat of the troops which have suffered in the fight, formed as that body would be of picked troops, having been kept in hand for some supreme moment, and therefore either not at all, or comparatively little, engaged.

\* See page 103.

If the line be broken at a decisive point, and retreat become imperative, the reserve would hasten to take up the best position for giving time to the various parts of the line, to gain the road or roads indicated for their retreat in an orderly manner.

It is clear that if the enemy should break in at a point immediately in front of one of those avenues, and should succeed in obtaining possession of it, the troops who would otherwise have used it in retreat, would be debarred from it and thrown upon other lines, if any such there be, which would thereby become inconveniently blocked up and hampered. Hence arises the necessity of having as many roads as possible leading to the rear of a military position.

If there should be but one road by which an army could retreat on its base, then the possession of that road by the enemy would entail consequences fatal to the defeated army. A great part would in all probability be cut off from its base, and either at once captured, or it would be thrown upon divergent lines of retreat, and prevented from communicating with the remainder of the force which might have retired upon its natural line; a condition of affairs which, if properly turned to account by the enemy, would result in its final surrender.

At the battle of Blenheim, Marlborough broke the French centre and obtained possession of the road which led from that point of the line to Dillingen, which was the only road by which the right wing of the French army could retire. The consequence was that the whole of the cavalry of that wing was driven into a loop formed by the course of the Danube, and captured; and 11,000 infantry were surrounded and finally taken about the village of Blenheim, which was in the same loop and on the extreme right of the French line.

The roads by which an army may retreat from a

military position, should either be parallel to each other in their general direction so that the columns marching upon them shall be able to communicate freely, or they should ultimately converge. A pursuing enemy should, of course, by all means be prevented from pushing troops between any two such roads.

In the case only where an army is falling back to place itself behind some great natural obstacle, such as a chain of mountains or a river, over which the only practicable passages are found on the roads by which the retreating army is moving—in that case only it may be permitted that those roads should be divergent in their direction, because the columns which have made such divergent retreat will be able to effect their junction covered by the obstacle, after having passed it without molestation.

The most dangerous pursuit to which a retreating army can be exposed, is one which presses the rear, at the same time that a part of the pursuing force marches by roads parallel to those on which the army is retreating, thereby continually endangering the flank of the latter. In such a case, it is impossible for the retreating army to make any stand; because if it turns to oppose the enemy in its rear, the flanking columns of the latter will either attack it in flank, or, continuing their march, will intercept the road of retreat. It must, therefore, in these circumstances hurry its march as much as is consistent with order and discipline in the ranks, until it can find shelter behind some great natural obstacle, or under the guns of a fortress.

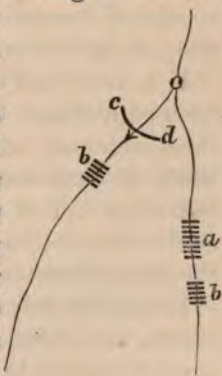
So long as the road by which an army retreats is the most direct possible leading to its object, and that none other exist parallel, or nearly so, by which an enemy may detach a force to harass the flank or to intercept the line of retreat at a point farther on, the problem is tolerably simple: it becomes complicated in proportion to the faci-



lities possessed by the enemy of following on one road while he marches parallel by others.

If any such parallel road exist which joins that by which your army is retreating at a point farther on, it must push on to that point by marches forced to the utmost limit of the endurance of the troops: there is no rest nor safety for it until it reach that point. But as a further precaution, the junction of the two roads should be intrenched beforehand, and a picked force of the three arms sent forward to hold it. It will be a race between you and the enemy to reach that point the first; and if he gain, the consequences are certain to be very disastrous.

In defending such a junction, the defensive position should, where the nature of the ground admits, be chosen some way in advance of the junction, barring the road of the enemy's approach. This will have the double effect of covering the flank of the line of retreat as the retreating army approaches the road on which the enemy is marching to intercept it, and of leaving the march of the retreating army free and unhampered in passing the junction. In the accompanying diagram, *a* represents the retreating army, *b b* the pursuing force, *o* the junction of the two roads, *c d* the position intrenched and defended by troops sent forward from *a*.



It has been said that a general would naturally avail himself of his reserve to cover the orderly retreat of his army from a battle-field by the different roads previously determined on. It would be unprofitable to prescribe any precise disposition of the reserve for that purpose: it must be regulated by the nature of the ground, and the actual

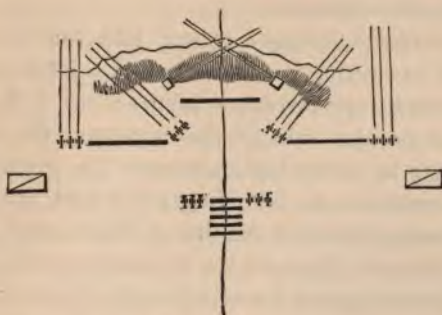
circumstances and events of the field. It may however be stated generally, that where a small body is required to oppose a large one, the formation in echellon is peculiarly favourable, being that which is especially fitted to gain time, because an attacking enemy must usually turn the retired flank of the echellon before he can overpower it.

Supposing an army on the point of retreating from a field of battle: those portions of the line which are immediately in front of the avenues of retreat must stand to the last and be strongly supported by the reserve; the distant portions of the line being first withdrawn, and effecting a retreat under cover of the standing troops. Thus, if there be two roads, one in rear of each flank, the order in which the army would retreat would be in two columns, which when fronted towards the enemy would be composed respectively of wings of the army; the right wing, right in front; the left wing, left in front.

If a road lead to the rear from the centre as well as from both flanks, then the order of retreat would be in three columns, which when fronted towards the enemy would be composed of the right wing, right in front; the left wing, left in front; and the centre of the army in double column, the two centre sections or subdivisions of the centre battalion being the head.

If there be only one road of retreat, and that behind the centre, the reserve would take up such a position as to cover it directly in front as well as to the greatest extent possible on both flanks: for this purpose the double echellon, both flanks being retired and centre advanced, is the most favourable formation. The weak point would here be the head of the echellon: its inherent weakness must therefore be remedied by favourable accidents of ground, or by artificial means, that is, by intrenchments constructed in anticipation. Thus the central body of the reserve, com-

posing the head of the echelon, should be on commanding ground and covered in front by some natural obstacle, such as a stream or ravine; or by abattis; or, if time has permitted, by the construction of a redoubt in front of each flank, that is to say, one on each side of the line of retreat. The accompanying diagram shows a favourable disposition of the reserve for the purpose of covering the retreat of a beaten army having only one road, and that leading from the centre.



In the case where the road leads from one of the flanks, the outer flank of that road will probably be of more importance to guard than the inner, because the efforts of the enemy having for their object to obtain possession of the line of retreat, will be probably directed from that quarter; and the reserve must be so disposed as to oppose those efforts in the most effectual manner, either by refusing its flank on that side, or by taking up a position *en potence*, that is, at right angles to the original front.

Having accomplished the desired object of enabling the different brigades to assume orderly columns of march on the road or roads by which they must retreat, the reserve, or another body of troops organised in the meanwhile, will form the rear guard. If it should happen that the reserve,



having been seriously engaged, had suffered considerably, it would always be a prudent measure to organise a rear guard composed of other troops, which, by taking up some commanding position in rear of the reserve, shall cover and protect the retreat of the latter in its turn, and render the retrograde movement of the whole more orderly and deliberate than if the reserve were pushed fighting on to the rear of the retiring columns. It is hardly necessary to say that there must be a rear guard to each column of march if there be more than one.

It is principally during a retreat that the advantage of superiority in cavalry is especially felt. Possessed by the beaten army, it may retreat at leisure; but if the preponderance be on the side of the pursuers, the retreating infantry may be compelled, wherever the ground favours cavalry movements, to halt frequently and form squares, thereby keeping it under the fire of the enemy's guns and allowing time for his infantry to come up; and thus the retreating army may be forced either to witness the capture of some of its divisions, or to engage in a battle at great disadvantage to support them.

At Fuentes Onoro, in consequence of the Duke of Wellington having extended his right too far in presence of an enemy superior in all arms but especially in cavalry, the light division was forced to retreat for nearly two miles over a plain, followed and threatened by the whole of the French 8th corps d'armée, and by 5,000 cavalry. And although the movement was effected without disaster, the circumstances should be received for a warning and not as a guide; for it was only owing to the want of determination of the enemy on that occasion that the light division did not very grievously suffer. 'For the whole of that vast plain as far as the Turones was covered with a confused multitude, amidst which the squares appeared but as

specks ; and there was besides a great concourse, composed of the commissariat followers, and of servants, baggage and led horses, and peasants attracted by curiosity, all being mixed with the broken pickets and with parties coming out of the woods. The 7th division was separated from the army by the Turones, and 5,000 French cavalry with 15 pieces of artillery were trampling the ground, bounding, shouting, and impatient to charge, while the infantry of the 8th corps was in order of battle behind the horsemen.\*

The exemption of the light division on that occasion was however, without doubt, greatly due to its superb discipline and confidence.

It is the cavalry and artillery, the arms of long reach, which have to bear the brunt of covering a retreat where the pursuit is close. To these should be joined a picked body of light infantry ; and the force so composed is called the rear guard. For the officer who commands this force, the highest tactical skill and coolness, combined with what is best expressed by the word *dash*, are essential attributes. The scale of his operations, however, being comparatively small, an officer may be first-rate in this capacity who would yet be quite unequal to handle a large army. Marshal Ney, who was unrivalled as a rear-guard commander ; Joachim Murat, and our own Robert Craufurd, who were both excellent ; may be cited as examples. Neither of these generals, admirable as tools to execute a prescribed duty, was equal to the task of commanding large armies. On the other hand, excellence in the larger sphere does not imply inferiority in the smaller : the two great chiefs, Napoleon and Wellington, would both have been unsurpassed as commanders of a rear guard ; their tactical skill was equally at home on the small scale and on the large ; no accident of ground, however trivial, which

\* Napier.

could be turned to account, escaped them. A letter from one of the Duke's old Peninsular officers lately appeared in the 'Times,' apropos of the historical romance lately published by M. Thiers on the Waterloo campaign, detailing how the Duke, at Quatre Bras, when in great anxiety for the arrival of the reinforcements necessary to arrest Ney's progress, observed and personally corrected a faulty disposition of a few companies in advancing to skirmish, which would have exposed them to unnecessary loss.

Yet, although the officer commanding a rear guard can hardly be too daring, he may very easily be too rash: and of this truth Craufurd's proceedings furnish more than one illustration.\*

On open ground, a retreating army unmolested by a superior cavalry, and having a few hours' start of a pursuing enemy, would be able, probably, to maintain the initial distance between them; for the victorious infantry, tired with a long battle, heavily loaded, and perhaps short of ammunition, move slowly on, and would scarcely see the retreating army after the latter had fairly turned its back, if there were no obstacles to delay its progress. But it is seldom that the circumstances of ground are so favourable. Supposing every precaution to have been taken to remove out of the way of the troops all the hamper in the shape of trains, &c., the artillery must move by the roads. If these are bad, and one gun only breaks down, the passage for the troops becomes narrowed; the front of march must therefore be diminished, and extended again after passing the obstacle; and at every operation of this sort, no matter from what cause, a delay is occasioned, slight near the head of the column, but multiplying itself in proportion to the length of the column of march on that road. Every defile, every bad bit of road, every stream, occasions

\* See after, page 274.



a like detention, which enables the head of the pursuing column to gain on the rear of the retreating force. It must therefore be considered as certain, that the rear of an army in retreat cannot, but under very exceptional circumstances, march so fast as that the leading troops of the enemy shall not gain ground upon it, and finally overtake it. Thus the duty of the rear guard is to check the progress of the latter, to gain time and nothing more. This being so, it is easily seen how essential it is that daring and discretion should be equally blended in the officer who commands a rear guard. He must never engage but with a view to the above object; making a stand in every favourable position to delay the enemy and to protect the march of the retreating column. Yet, that service performed, he must not allow himself to be tempted by the prospect of some brilliant but fruitless achievement to prolong his resistance, but must follow the main body, deploying his small force anew in every favourable position, but hurrying as rapidly as possible over all ground that is not favourable.

A rear guard cannot pretend to stop a pursuing enemy beyond a limited time, unless in very exceptional cases. The work of a rear guard is best accomplished, not by fighting, but by threatening to fight. It therefore forms in order of battle on all ground which is favourable, as if with the intention of seriously opposing the enemy's advance; the latter must then break up his column of route, and likewise form in order of battle. The rear guard maintains its attitude until the enemy has deployed a force so superior as to be able to turn the defensive position and to attack it in front at the same time, and must then decamp to follow the main body: the enemy then breaks up again his order of battle into order of march to pursue. And so it goes on; at every favourable opportunity the

same game is played by the rear guard; and thus, often without the hostile forces coming into collision at all beyond a cannonade, numerous delays are imposed on the pursuers, which enable the retreating army to continue its march without molestation.

A good illustration of these remarks is afforded by the manœuvres of the Prussian rear guard to delay the advance of Napoleon along the road from Charleroi to Fleurus before the battle of Ligny. An issue of tremendous importance to the world was affected very materially by the enforced delays of the French columns during that short march: for if Napoleon had been able to advance rapidly on Ligny without opposition, he would have found only half the Prussian army there assembled; the ultimate consequence of which would have been, that Napoleon would have swept the Prussians from before him at Ligny, and then, acting on Wellington's flank at Quatre Bras, would have driven him from that position, and have united the whole French army at Waterloo on the 16th June; thereby preventing the concentration of the Allies, and acquiring the power of destroying them in detail.

French writers, as is their custom, prescribe rigidly the limit of distance from the main body at which a rear guard should act. This is simply ridiculous: the only rule which can profitably be laid down is, that if the pursuit be close the rear guard must preserve as great a distance as possible between itself and the main body; always having in view the possibility of the enemy's flanking troops penetrating between them, if the distance be too great to admit of the ground being closely observed.

Where the pursuit is not close, the same principle applies, although probably in practice it would never be advisable to have more than one march between the army and its covering body.

Positions may occasionally present themselves so strong and contracted as to be unassailable by the pursuing enemy, even when defended only by a rear guard, and only to be turned by a march more or less circuitous. The object of the rear guard being to gain time, it should hold such a position as long as it is possible to remain there with safety—regard being had to the time required by the enemy to turn it. Either the enemy must consume time in detaching a force to turn the position; or if in his impatience he should attack it, he may suffer such a check as would alter considerably the relative *moral* circumstances of the two armies.

A retreating army may turn upon its pursuers and offer battle where a strong position, or the arrival of reinforcements, may render it advisable; but its action in this respect must be governed by the general aspect of affairs in the theatre of war. If it were only a question of two armies, one retreating, the other following, the above course might always be adopted, other things being favourable—always supposing the position secure from being turned within the scope of tactical operations. But where two armies operate in the same theatre with a common object, one of them in falling back must be guided by the circumstances and position of the other, and must frequently hurry its march to the utmost possible extent, without reference to the defensible nature of the ground it passes over, to fulfil some object of paramount importance to the general interests. In the example above cited, for instance, the Prussians could not safely delay to fight Napoleon on the road between Charleroi and Ligny, even though they had been strong enough to do so. For Ney was advancing on Quatre Bras with a second French army; and had he been successful there—as there was good reason to expect he would be—he would then



have been in rear of the Prussian army, supposing the latter to have stood to fight between Charleroi and Ligny, on the direct line of communication between it and Wellington, and with the power of intercepting the Prussian divisions which had not as yet joined the main body.

As a general rule, it may be considered that a retreating army is likely to improve its condition day by day on account of the diminishing distance from supplies and reinforcements, while the condition of the pursuing army, by increasing the distance from its magazines, becomes daily more difficult. And this is an advantage inherently attaching to a retreat, provided it be in its natural direction and conducted in an orderly manner.

Another advantage is, that an army which during a retreat turns suddenly in a defensive position, concentrates its force by the mere halt of the leading troops, and the gradual formation upon them of those in the rear as they arrive. Thus all its brigades are united and resting long before the enemy can possibly form for attack; for the latter has first to close up his long line of march, and afterwards to form in order of battle on the leading brigades, besides reconnoitring the position in front of him, before he can venture to attack.

Suppose, for example, the line of march of a retreating army to be six miles long—a very moderate estimate. The head of the column being halted on reaching the ground chosen for defensive occupation, the brigades in rear will close upon it, and successively enter the places assigned to them in the position. The head of the pursuing column will about this time reach the ground where it must halt in order that the army may form for attack; but the rear brigades have still six miles to march before they can enter the line, thus giving a clear gain of at least two hours to the retreating army before the other can be formed for

attack, besides a further gain of the time which may be necessary for the intending assailant to reconnoitre the position and form his plan. This time will vary according as the country is close or open. In an open country, a general of rapid glance and decided character will have his plans formed quite as soon as his troops will be in a condition to execute them; but in a close country, the most daring commander may be forced to delay his attack for hours, in order to acquire a knowledge of what may be in his front.

By employing judiciously his physical advantages of the above nature, the general in command of a retreating force has much in his power. For instance, if a favourable position occurs on the line of his intended day's march—a position of which, of course, the circumstances are previously known to him—he may time his morning start from the last night's halting-place, so as to arrive there three or four hours before sunset. Whatever may be the enemy's impatience, he dare not attack this new position until his army is formed methodically and his dispositions are completed. Under the most favourable circumstances this would occupy so much time, that sufficient daylight would not remain to commence a battle with any hope of bringing it to a successful issue before dark. The retreating army then, if it does not intend to fight, decamps in the morning, the rear guard being so disposed as to conceal the movement and delay the advance of the enemy as long as possible: and the same game may be played over and over again, because the conditions on which its success depends are invariable, being time and distance, which an enemy cannot alter. But this course is only open to a general whose troops are under good discipline, and whose march is methodical and orderly.

The retreat of the Confederate army from the lines of

York-town, on the James-river peninsula, affords so good an illustration of many of the foregoing remarks as to merit some notice.

*The Confederate Retreat from York-town.*

The York-town lines extended across the peninsula which is formed by the James and the York rivers, both flowing from the general direction of Richmond into Chesapeake Bay.



The Northern army, under General M'Clellan, about 80,000 strong with 350 pieces of artillery, disembarked at



Fortress Monroe (A in the diagram); the James river, which would have otherwise afforded an easy approach to Richmond by water, being blocked by the Merrimac and by forts. The Northern army was therefore obliged to advance against Richmond by land. It was intended that a flotilla of gunboats, carrying Franklin's division, 11,000 strong, should steam simultaneously up the York river, turn the left flank of the Confederate lines, and, passing beyond them, should then land Franklin two marches farther up on the direct line of retreat to Richmond. If this could have been done, the Confederate army could not have remained an hour at York-town: its retreat would have been hurried and closely pressed, and it must have abandoned all its material, judging from the bad state of the roads as described in the different accounts. But the intended action of the flotilla was prevented by batteries at Gloucester Point (B), which barred the entrance to the river.

On the 6th April M'Clellan arrived before the lines of York-town, and finding them too strong for assault, besieged them in form. The means at his command rendered their reduction a work only of time; but it was precisely *time* which the Confederates contended for, so that they might assemble troops for the defence of Richmond from other quarters, and that they should be enabled to carry off their material safely from York-town.

After being detained before the intrenchments until the 3rd May, M'Clellan ordered a general assault for the morning of the 4th; but on the troops advancing to the attack, they found the position silent and deserted. For several days previous the Confederates had kept up a continual heavy fire, under cover of which they had withdrawn all the troops but those required to work the guns and the sharpshooters in the rifle-pits, as well as all their

material except seventy-two guns, which they were obliged to leave behind on the works as the price of their unmolested retreat. The Gloucester Point batteries were also abandoned, but too late to enable the cooperation of the Northern flotilla, carrying Franklin's division, to be of any use; and all that remained for M'Clellan was to follow up the retreating army as quickly as possible, in the hope of inflicting some damage on its rear.

Two roads lead from the position of York-town to Williamsburg, where a strong position is afforded by a narrow neck, formed between two creeks which run far into the peninsula from the James and York rivers on either hand, and are marshy at their extremities. On this narrow neck the two roads from the York-town position unite; by these the wings of the Confederate army respectively retreated, and on those roads the Northern troops pursued. In rear of the neck stood the town of Williamsburg.

On the left-hand road the pursuers overtook a portion of the Confederate army; this being reported to M'Clellan, gave him hope of being able, by hastening his march on the right-hand road, to seize the junction (D), and thereby to cut off from Williamsburg the Confederate column which was retreating on the left-hand road. He accordingly pressed the march of his right-hand column; but no sooner did it approach the junction than it was received by an overpowering fire from several redoubts constructed in rear of the isthmus, between which the Confederates were formed in order of battle.

The Southerners had made good use of the time during which they held M'Clellan at bay before York-town, and had made of this important point a very strong position. On the open ground beyond the isthmus, placed on the roadway commanding the fork D, was a considerable bastioned fort. On each flank of this work was a series of

redoubts with a line of rifle-pits covering them, fronting every part of the marsh into which the two creeks gradually merged, where it would be possible for infantry to advance. The outer edge of the marsh was covered by abattis for the purpose of detaining the enemy under the fire from the works, leaving passages in them to admit the Confederate troops which were approaching by the left-hand road, and by which openings the defenders might pass to take the offensive if opportunity offered.

The Northern cavalry, marching rapidly by the right-hand road in the hope of intercepting the Confederates coming by the other, was arrested by the works and abattis. A gallant though ridiculous attempt was then made to carry the works with horse artillery and cavalry, which filed through the abattis exposed to the concentrated fire of the fort and redoubts, and was, of course, repulsed with loss; and the Confederate troops on the left-hand road reached the junction and entered the position unmolested.

In the evening, the Northern infantry came up by both roads. And here it may be remarked, it is little surprising that the result of every offensive military operation by the Union troops has almost invariably been disastrous except when aided by their navy; for we have the statement of a witness who cannot be suspected of partiality to the South, that the different divisions which were advancing on this occasion to attack the enemy's position, were on both roads separated from each other by 'an enormous multitude of wagons loaded down with baggage, and for the most part fast in the mud.' \*

Such a discreditable want of the commonest and most obvious arrangement is accounted for by the fact that in the American army, according to the same witness, 'there is

\* Prince de Joinville.



no special branch of the service whose duty it is to regulate, centralise, and direct the movements of the army.' There was, in short, no general staff: and the evil of this deficiency made itself sensibly felt in the attack on the Confederate position at Williamsburg on the following day. 'No one knew the country; the maps were so defective that they were useless: little was known about the fortified battle-field on which the army was about to engage; yet this battle-field had been seen and reconnoitred the day before by the troops which had taken part in Stoneman's skirmish. Enough was surely known of it for us to combine a plan of attack, and assign to every commander his own part in the work. No! this was not so. Every one kept his observations to himself, not from ill-will, but because it was nobody's special duty to do this general work.'

In the pamphlet from which the foregoing extract is taken, the Prince de Joinville warmly eulogises General McClellan's ability and character as a commander, and in many respects justly; but he could hardly have adduced a stronger proof than that furnished by the foregoing quotations of the general's unfitness to lead an army to victory. That a general, whose sole business it was for many months to organise an inexperienced force, should have entirely neglected the one measure which could alone give a practical value to the discipline and bravery of his troops, in the creation of a staff which should give combination and coherence to their movements—that the columns of his army were allowed by him to march towards an enemy with the intention of attacking him, in such confusion as rendered success an impossibility—are circumstances which, taken in connection with his undeniable military qualities, present an enigma impossible to solve, unless the peculiar susceptibilities of the extraordinary people

with whom he had to deal, may furnish the solution.

The attack on the Confederate position at Williamsburg was repulsed, as could not be otherwise, during the whole day, with great loss to the assailants; but towards evening the Northerners succeeded in passing the creek on their right by an old unguarded mill-bridge, and established themselves on the left flank of the Confederate lines. The Confederate general, who by holding his ground at Williamsburg during two days had gained time for his trains to pass quietly to Richmond through the narrow and bad country roads, withdrew his troops during the night. Indeed, he could not under any circumstances prolong his stay at Williamsburg, for fear the Northern flotilla, to which the York river was now open, should steam up that river and land Franklin's division in his rear. This was in fact attempted, and Franklin's troops did disembark on the Upper York river two days after the battle of Williamsburg, but just too late to offer any interruption to the retreat which was safely accomplished to Richmond.

It is difficult to ascertain with any certainty the force of the Confederates during these operations; but the writer of the article in the January number of 'Blackwood' for 1863, entitled 'A Month's Visit to the Confederate Head-quarters,' states that the force which detained M'Clellan before the lines of York-town for more than a month only numbered 8,000 men! The success of the Confederates was, therefore, entirely due to the moral effect produced on their adversary by the confident attitude they maintained.

In criticising the battle of Albuera, Napier says that on the evening after the battle, Beresford wrote to Lord Wellington avowing that he anticipated a certain and ruinous defeat the next day, and was resolved not to survive it. The resolution with which he maintained the position

notwithstanding, was the strongest indication of military talent he gave during the whole of his operations: had Soult only persisted in holding his position with equal pertinacity, Beresford must have retired. It was a great and decided mistake of the French marshal not to have done so. There is nothing more essential in war than a confident front: a general should never acknowledge himself vanquished, for the front line of an army always looks formidable, and the adversary can seldom see the real state of what is behind. The importance of this maxim is finely indicated by Livy, who relates that after a drawn battle, a god calling out in the night declared the Etruscans had lost one man more than the Romans!—whereupon the former retired, and the latter remaining on the field, gathered all the fruits of victory.

*Craufurd's Operations on the Agueda and Coa in 1810.*

(See Plan 4.)

In February 1810, Ciudad Rodrigo, which was held by a Spanish garrison, was threatened by the French army under Marshal Ney. The circumstances of Wellington's situation rendered it necessary to keep his army well in hand, ready for an instant retreat to the Tagus, though still watching an opportunity, should any such be afforded by a faulty disposition of the enemy's very superior force, to strike a sudden blow for the relief of Ciudad. With this view, Wellington disposed his army on the Upper Mondego, between Guarda and Celerico; but he sent Craufurd with the light division across the Coa to observe the enemy's movements and to cover his own. In these operations, therefore, Craufurd's force may be considered as the rear guard of the army. The three regiments of the light division were singularly fitted for such a service. Trained and



disciplined by Sir John Moore, 'they came to the field with such a knowledge of arms, that in six years of real warfare no weakness could be detected in their system, and in all that time they were never overborne by courage or skill.'\*

With these matchless soldiers a commander might venture much; but while the French advanced posts were on the Agueda, and their army was disposed by divisions along the road between San Felices and Ledesma, Craufurd could not remain prudently without cavalry beyond the Coa with no nearer support than Guarda or Celerico. Wellington accordingly reinforced Craufurd with the German hussars, numbering 400 excellent and experienced troopers, and with Ross's superb troop of horse artillery, at the same time that he advanced the 3rd division to Pinhel. Two regiments of Portuguese caçadores afterwards brought up the infantry to 4,000; and with this force, 400 cavalry and 6 guns, Craufurd commenced a series of remarkable operations, during which he kept himself for three months within a few hours' march of 60,000 enemies, and appropriated the resources of the plains entirely to himself.

His dispositions were as below.

He lined the bank of the Agueda with his hussars from the Douro on the left to Navas Frias on the right, a distance of twenty-five miles following the course of the river; but the communication between these two points which followed the chord of the arc described by the stream was little more than half that distance. The British infantry was disposed in small parties in the villages between Almeida and the Agueda below Ciudad. The guns were at Fort Conception, and the caçadores were in reserve.

Although Craufurd's line was very extensive, it was from

\* Napier.

actual circumstances less dangerous on that account than would appear at first sight; for from Navas Frias to its confluence with the Douro, the Agueda was rendered unfordable by heavy rains, and there were only four bridges along that extent—viz., at Navas Frias; at Villar, three miles below; at Ciudad Rodrigo, held by the Spaniards; and at San Felices.

While the cavalry kept good watch on the two first-named bridges on Craufurd's right, the troops could always concentrate under the guns of Almeida before the enemy could reach them from that quarter on account of the distance. And so long as the river was swollen, no danger was to be apprehended from the front, because the one bridge there available for the enemy was at a part of the river where the ravine was so profound that a few companies of riflemen could defend the passage against almost any number of enemies.

But the Agueda was capricious and its changes were sudden. Directly it became fordable, Craufurd always withdrew his outposts and concentrated his division. His situation was, in truth, a very delicate one, requiring a quickness and intelligence in the troops the like of which has been seldom known. 'Seven minutes sufficed for the troops to get under arms in the middle of the night; a quarter of an hour, night or day, to bring them in order of battle to the alarm-posts, with the baggage loaded and assembled at a convenient distance in the rear; and this not upon a concerted signal or as a trial, but at all times and certain.'\*

It was this quickness and intelligence which could alone render it possible to maintain a forward position with so small a force. One bright moonlight night, the French general Ferey, thinking to surprise the division, collected

\* Napier.

600 grenadiers close to the bridge of San Felices, and, waiting till the risen moon behind him cast long shadows from the rocks and rendered the deep chasm dark as pitch, he then passed the narrow bridge silently, and ascending the opposite side, bayoneted the sentries, and fell on the picket so fiercely that it was borne back in a moment into the village behind, where some companies of the Rifles with their colonel, Sydney Beckwith, were quietly sleeping. A quarter of an hour sufficed to drive back the assailants headlong over the river; and the attack only showed that while the Agueda was unfordable the enemy could gain nothing by partial operations; and thus Craufurd maintained his position till the end of May.

But on the 1st of June, Ney descending on Ciudad Rodrigo, threw one trestle bridge over the river two miles above, and a second two miles below that fortress. On the 8th, 4,000 French cavalry crossed the Agueda, and Craufurd concentrated his forces at Gallegos and Espeja. His position was now extremely critical. From the Agueda to the Coa, the whole country, although studded with woods and scooped into hollows, was free for cavalry and artillery; and there were at least 6,000 horsemen and 50 guns within an hour's march of his position. His right was at Espeja, where thick woods in front rendered it impossible to discover an enemy until close upon the village, while wide plains behind almost precluded hope in a retreat before the multitude of French cavalry and artillery.

Yet, although the Agueda became everywhere fordable on the 10th, as the enemy appeared busy with his preparations for the siege of Ciudad, Craufurd, trusting to his arrangements and to the discipline of his troops, still maintained his dangerous position; by doing which he encouraged the garrison of Ciudad and protected the villages in his neighbourhood from the enemy's foraging parties.



On the 18th, the French invested Ciudad; and on the 25th, their batteries opened on the place. Wellington, not being sufficiently strong to attempt its relief by a battle, reinforced Craufurd with the 14th and 16th Light Dragoons; and the latter, placing all his cavalry at Gallegos, concentrated his infantry in the wood of Alameda, two miles in rear. Here he had choice of two roads for retreat: one by the bridge over the Coa, near Almeida; the other by the bridge of Castello Bom. Nevertheless, obstinate not to relinquish a foot of ground he could keep either by art or force, he remained until the 2nd of July; and on the evening of that day, to impose on the enemy who showed a disposition to advance, he disposed his force in single ranks on some rising ground, and then, sending some cavalry to the rear to raise a dust, marched the ranks of infantry slowly and in succession within sight of the enemy, hoping the latter would imagine that the whole army was coming up to succour the besieged fortress. By this artifice he succeeded in gaining two more days; but on the 4th the resolute advance of a strong body of the enemy obliged the British cavalry to fall back skirmishing to Alameda. Craufurd then withdrew his infantry and guns towards Fort Conception and posted them in a wood near that place, while he disposed the cavalry along the banks of the Duas Casas river, stretching towards the right: the enemy then fell back again behind Gallegos.

On the 11th, the surrender of Ciudad left the French army at liberty to advance; yet Craufurd remained where he was until the 24th, when a forward movement of the enemy induced him to blow up Fort Conception and to retire upon Almeida, as if with the intention of crossing the Coa; but nothing was further from his thoughts. Forgetting that his stay beyond the Coa was a matter of sufferance merely, not of real strength, and disregarding

the positive orders of his chief not to fight in that situation, he resolved, with headstrong ambition and contrary to all military reason, to engage on the right bank.

His force consisted of 4,000 infantry, 1,100 cavalry, and six guns; and his position, one mile and a half in length, extended in an oblique line towards the Coa. The right rested on some broken ground, the left on an unfinished tower eight hundred yards from Almeida, and was to a certain extent defended by the guns of that place; but close behind the rear was the ravine forming the channel of the Coa, the bridge over which was, however, more than a mile distant; and 60,000 enemies were gathering against the front.

In this false position Craufurd was attacked on the morning of the 24th by Ney's corps, numbering 24,000 infantry, 5,000 cavalry, and 30 guns. The only course which then remained open to the small British force was to gain the other side of the Coa with as little loss as possible. Fortunately for Craufurd, Montbrun, who commanded the cavalry, was independent of Ney, and would not obey the orders of the marshal to gallop with his whole force to the bridge and so insure the capture of the whole division, though Ney sent five officers in succession urging him to act. The British infantry fell back fighting—at great disadvantage, since they were retreating down steep and rugged ground. The left wing, being hardest pressed, and having the shortest distance to march, reached the bridge while it was still crowded with the artillery and cavalry, and while the 52nd regiment which was on the right flank was still distant and must inevitably have been cut off and captured but for the resolution of Major McLeod of the 43rd, who seeing all the danger posted four companies of his regiment on a hill to the right of the road leading to the bridge, while a corresponding hill to



the left of the same road was occupied by the Rifles. These two posts were maintained for some time, but at last the French gathering in great numbers made a determined rush and forced the defenders back while a part of the 52nd were still at a considerable distance from the bridge. The danger, which was very serious, was averted by one of those inspirations which sometimes change the fate of a battle. M<sup>r</sup>Leod, seizing the situation and all its consequences at a glance, and judging that the most daring was also the safest course, turned his horse, and waving his cap and calling on his men to follow, rode with a shout towards the enemy. The suddenness of the action, and the entire love and confidence his soldiers had for him, produced the desired effect: a mob of soldiers rushed after him cheering and charging as if they had a whole army at their back; the enemy, astonished at the unexpected movement, stopped short, and before they could recover from their surprise, the 52nd passed the bridge, M<sup>r</sup>Leod followed at full speed, and the whole gained the other side without disaster.

In considering the above operations, although undoubtedly able and brilliant up to his combat on the Coa, the conduct of Craufurd in remaining so far in advance of support, in the close neighbourhood of an enemy possessing an overwhelming force of cavalry, must be pronounced rash; for the French cavalry by a rapid movement could have forestalled him at both the bridges on which he depended for retreat over the Coa. That they did not do so was owing to their ignorance of the real state of affairs. They were imposed upon by Craufurd's *brag*: they could not believe he was so bold as to beard a whole army of 60,000 men with an isolated division; and the story affords a proof of the truth of the axiom, that in war *you are for all practical purposes what your enemy for the time being believes you to be.*



Craufurd's attempt to defend the passage of the Coa was an instance of strategical as well as of tactical insanity:—tactical, because no possible advantage was to be gained; for his front of battle, enveloped on both flanks, could not delay the enemy an instant; a retreat became imperative the moment the French appeared, and that retreat had to be effected down a steep and difficult hillside, and across one narrow bridge at the bottom of the chasm a mile in rear of the position;—strategical, because even though Craufurd had been able to make head against Ney's corps which was attacking his front, Junot's corps, marching on Ney's left, would have turned his right, and crossing the Coa by fords two miles above the bridge, would have interposed between the light division and the army to which it belonged.

*Napoleon's Retreat from Moscow.*

The retreat of the French army from Moscow in 1812—both on account of the magnitude of the contending armies and the appalling losses incurred, the most famous retreat mentioned in history—affords also the most striking example of the difficulty of such an operation.

We see here the most wonderful military genius of his age, after a triumphant advance into the heart of an enemy's territory, hunted back over the frontier, and his Grand Army so completely disorganised as hardly to retain the semblance of a military body. Yet the arrangements of Napoleon manifested consummate skill, and a foresight probably as complete as could be exercised by human intellect. But the enterprise on which he had now ventured was too vast for mortal man, for the scale of his operations necessarily made him dependent on the talent and fidelity of many lieutenants; and the elements of

failure arising from the disobedience, jealousy, or incapacity of subordinates, as well as from what men call chance, must enter into all human undertakings in proportion to their magnitude. (See Plan 5.)

The turning-point of the destiny of Napoleon was that moment when, after having taken Smolensko in his advance, he hesitated whether to winter there or continue his movement on Moscow. Pride, not policy, unquestionably decided his resolution, against his better judgment and fatally for himself.

The strategical front of the army which afterwards marched to Moscow was at that moment very strong. The right flank rested on the Dnieper, the left on the Dwina at Witepsk; the front extended over the comparatively narrow space between those rivers. Smolensko was an impregnable advanced post. It will be observed that the course of the two rivers was obliquely to the rear of this strategical position. The line of the Dwina, from Witepsk to Riga at its mouth, was secured by two French corps under Marshals Macdonald and St. Cyr; that of the Dnieper, by a French corps under Marshal Victor, and an Austrian corps commanded by Schwartzenberg; thus the grasp which Napoleon laid on Russian territory presented the general form; centre advanced and very strong; flanks retired and secure; communications admirably organised; and Russian Poland in his rear with every living soul trembling and praying for his success because they believed their deliverance from the detested Russian to be bound up with it. Had Napoleon at that supreme moment of his destiny been swayed by reason instead of pride; had he remained at Smolensko and declared Poland an independent kingdom; his position during the winter would have been as secure as at Paris: the Dwina and Dnieper would probably have formed the

advanced boundary of his dominions; the solitudes of St. Helena would never have resounded with the petulant complaints of this spoiled child of fortune; and it need never have been revealed to his worshippers that their giant idol had, after all, but feet of clay.

The tremendous disaster which overtook Napoleon on this occasion was almost entirely due to the vastness of the scale on which he was operating, and the great length of his line of communication; for the severity of the season, although it was the most powerful immediate agent in the destruction of the army, was not of itself the cause of that destruction.

Napoleon commenced his retreat from Moscow on October 19, and arrived at Smolensko on November 9; and although since the 3rd the troops had suffered horribly from cold, and were engaged in constant encounters, from both of which causes their losses were heavy, yet they would have found a term to their hardships at Smolensko if the Emperor's lieutenants had acted up to the instructions of their chief. The salvation of the Grand Army depended on the faithful fulfilment of the Emperor's programme by four marshals, independent of each other, commanding corps d'armée in his rear. Here were four elements of failure; for the distances were too vast, and the Cossacks too numerous and active, to admit of that constant communication between chief and subordinates which is indispensable to the success of a combined plan. The marshals were necessarily left to themselves, and, not being Napoleons, they failed. Consequently, when the army arrived at Smolensko, expecting to be received there by Victor's corps and a plentiful supply of provisions, they found neither food nor troops. Victor and the other marshals were in the grasp of enemies from whom they could not escape, and the Grand Army was



forced to resume its hurried, and from thenceforth hopeless, retreat.

We learn from the history of this event, how absolute is the influence exercised on a general, by the necessity of feeding his troops, with respect to the route he must select for their march. The road of Mojaisk by which the army had advanced to Moscow had been so completely devastated by the two armies, that Napoleon, when he abandoned Moscow, resolved to regain Smolensko by the circuitous route of Kalouga, which lay through the richest districts of Southern Russia; and this resolution was the cause of his principal military disasters. The Russian armies could move in all directions, and had no need to trouble themselves about their communications; and hence arises the principal danger to an invading army in an enemy's country. The invader has but one base, and his communications must follow the shortest possible line which leads to it; while the defensive force finds a base in every point of the compass, and may move at convenience in any direction. In Russia every living soul was in league with the armies to defend the sacred soil, and to hunt from it like wild beasts the presumptuous and infidel invaders who had dared to pollute it.

In his retreat from Moscow to Smolensko, Napoleon was exposed to the most dangerous of all pursuits. A hostile army followed his track, while another marched on a parallel line to head him. He found, on endeavouring to march by Kalouga, that Kutusoff was established in force across the road at Tarantino. Not being strong enough to force such a position, and not daring to risk a defeat which would have been ruin, Napoleon made a secret and rapid flank march to Malo-Jaroslawitz, hoping to be able to reach Kalouga from that place. His movement and intention were, however, discovered; and

the French advanced guard under Eugene was attacked at Malo-Jaroslavitz by the Russian general Doctoroff, with a force which had been detached for that purpose. The Russians were finally repulsed, though not until they had given time for Kutusoff to arrive with the main Russian army, and to bar the road to Kalouga from this direction also; and the French army was consequently driven to regain the wasted route, passing by Mojaisk and Borodino, by which they had advanced to Moscow.

Kutusoff immediately struck diagonally across the country to Wiazma, on the road between Mojaisk and Smolensko, with the design of barring the passage of the French at that place, at the same time that he sent a corps of 25,000 infantry and all his light cavalry under Miloradowitch to follow up their rear, and delay their march sufficiently to insure his being able to forestall them at Wiazma. Kutusoff succeeded in reaching Wiazma on 3rd November, while as yet only Ney's weak corps had arrived. The corps of Eugene and Davoust were still in rear, separated by a considerable interval from Ney and from one another. Miloradowitch, who was in pursuit, managed by a skilful forced march to interpose his regular cavalry between Eugene and Davoust, while the Cossacks incessantly pressed the rear of the latter. Eugene, however, facing about, extricated Davoust before the infantry of Miloradowitch could come up. Kutusoff remained only an inactive spectator during an occasion which, if properly turned to account, would probably have resulted in the destruction of the greater portion of the French army. Sir Robert Wilson, in his *Memoirs*, explains this supineness by the statement that Kutusoff, being devoted to the 'old Russian' party—that is, the party of the principal Russian nobility whose policy it was to restrict the power of the Czar—did not wish completely to destroy Napoleon,



who formed a convenient counterpoise to their own autocrat. And Kutusoff's subsequent behaviour at the Bérésina gives additional probability to this view.

From the day of the fight at Wiazma, the 3rd, the cold became extreme, and the bivouacs each morning presented a dreadful spectacle.

Ney now took the rear guard. The main body reached Smolensko on the 9th; but Eugene being detached to the north to the support of St. Cyr who was hard pressed by Wittgenstein on the Dwina, was obliged in his march to pass the river Wop, the bridges of which were broken, and the waters, not yet frozen solidly, filled with floating ice. The French succeeded in passing it by fording; but, harassed by Cossacks in rear, assailed by Cossacks in front on emerging almost dead with cold from the water, their loss was heavy. The banks being steep and slippery with ice, eighty guns were here abandoned from the impossibility of the horses dragging them up the ascent without being rough-shod. Eugene, being therefore unable to fulfil his mission, turned again towards Smolensko, which place he reached on the evening of the 13th with the remnant of his corps, now reduced to 5,000 men and destitute of all material.

Having now brought the army to Smolensko, let us cast a look backwards, in order to understand clearly what were Napoleon's arrangements to protect his retreat, and how the expectations which he built upon them were disappointed. No general was ever more careful and methodical in protecting his rear than was the French emperor; and he never lost sight of that great principle of war so concisely expressed by Sertorius, when he told Pompey that a great general should look behind him rather than before. Napoleon, acting on the proverbial kindness of fortune to a daring course, often urged his lieutenants to apparently desperate undertakings with what may appear



insufficient means; but he invariably covered their communications with heavy masses, and there is no instance of his plans of invasion being shaken by a flank or rear attack, except where his instructions were disregarded, as in the present instance.

When Napoleon advanced on Moscow from Smolensko, one army of 40,000 men under Schwartzenberg on the extreme right, and another of the same strength under Macdonald on the extreme left, secured the flanks of the invasion. Schwartzenberg's sphere of operations was on the middle Dnieper, and he was charged with the protection of the line of communication from that river with Warsaw. Macdonald's sphere of action was about Riga on the lower Dwina. To close the interval between these two, St. Cyr with 30,000 men, having Polotsk on the Dwina as his centre of operations, was in military communication with Macdonald on his left, and on his right with Victor, who, with another corps of 30,000, guarded the interval between St. Cyr and Schwartzenberg, and had Smolensko for his centre of activity. Besides these four corps, the line of communication with Prussia through Poland was guarded by 52,000 men under the command of Augereau. Thus a mass of about 180,000 combatants was disposed to protect the flanks and rear of the Grand Army led by Napoleon. And if his lieutenants had made good the strategical line confided to them, as with the numbers at their disposal he had good reason to expect they would be able to do, the Grand Army in its retreat would have found rest and safety at Smolensko.

At the opening of the campaign, the Russian forces were very inferior in numbers to the invaders. Essen was opposed to Macdonald, Wittgenstein to St. Cyr, and Tormasoff to Schwartzenberg; but for weeks Victor had no opponent.

But on the very day of Napoleon's entry into Moscow, September 14, Tchitchagoff with 50,000 Russians, released from the Danube by peace with Turkey, joined Tormasoff, and took the offensive against Schwartzenberg, who retired to the frontier of the Duchy of Warsaw. Tchitchagoff then, on October 27, leaving 27,000 men under Sacken to follow and observe Schwartzenberg, marched by his right rapidly to Minsk where were the principal magazines of the French army. The place fell into his hands on November 16, or two days after the French quitted Smolensko in retreat; and Tchitchagoff, then advancing to meet them, stormed on the 21st the fortified bridge of Borisov over the Beresina, which was the sole dependence of the French army for crossing that formidable river.

Looking now to another quarter, the Russian army from Finland had arrived to reinforce Wittgenstein, who was thus enabled to capture the intrenched camp which St. Cyr occupied at Polotsk on the Dwina, and to drive the latter over that river. This took place on October 18, or the day before Napoleon evacuated Moscow. One of St. Cyr's divisions retired in the direction of Wilna to cover that place; the remaining two divisions joined Victor, who nevertheless allowed Wittgenstein to take Witepsk with its magazines on November 7th and afterwards fell back without sufficient reason from the Dwina, thereby uncovering Smolensko; and thus, when the French army marched into Smolensko on the 9th, expecting a plentiful supply of food, which it was Victor's business to collect there from the different magazines, they received instead the intelligence that Victor was in retreat, and that the magazines were in possession of the enemy; and, moreover, that both flanks were uncovered by the retreat of St. Cyr on the one hand from

Polotsk, and of Schwartzenberg on the other from the Dnieper.

Fortune, which had hitherto unvaryingly attended the French Emperor, appeared in this campaign to have turned from him, as if in anger at his too presumptuous confidence in her favour; for such a succession of disasters, flowing as they did from the imbecility or lukewarmness of his lieutenants, could hardly have been forecalculated on any theory of chances.

It is true, it was not prudent to build very confidently on any performance of Schwartzenberg, an Austrian commanding an Austrian force—and his operations savour strongly of treachery—for it would have been easy, by leaving 10,000 men to observe Sacken, to follow with 30,000 after Tchitchagoff in his movement on Minsk, and to prevent the capture of that place with its two million rations, which was for the French army a greater calamity than the merciless frost. Instead of so acting, however; when he received orders to follow Tchitchagoff, he marched first with his whole force against Sacken; and the easy defeat which he inflicted on the latter only drew him farther away from Minsk which was his real point of action.

But what shall be said of Victor, one of Napoleon's own marshals, who knew that on his operations might almost be said to depend the safety of the Emperor and his army? In remaining on the defensive after the retreat of St. Cyr from Polotsk, with a superior force to that of Wittgenstein, he made the latter a present of advantages which he could hardly hope to gain from a victory. A resolute demonstration would, in all probability, have forced the Russian general to recross the Dwina; or if the latter had accepted battle, he would probably have been defeated. But the retreat of Victor uncovered Smolensko, and enabled his opponent, in taking the magazines of Witepsk, to take the



lives of a multitude of French soldiers as certainly as if he had slain them with steel and bullets on the field of battle. It is said that Victor and Oudinot (who succeeded St. Cyr in the command of his corps after it withdrew from the Dwina), not being on good terms, sacrificed the general good to their private jealousies. Napoleon had often suffered from a similar cause in Spain, but never so fatally as now.

While the army was resting at Smolensko, Kutusoff, with the principal Russian army, marching by Jelnia, arrived at Krasnoi. The French quitted Smolensko on November 14, marching in four divisions, with intervals between them. Napoleon, with the leading division composed of the guard, reached Krasnoi on the 16th. Kutusoff, with a supineness which is unaccountable on any other explanation than that supplied by Sir Robert Wilson, above referred to, allowed the Emperor and his guard to pass unmolested; but the corps of Eugene and Davoust in rear were attacked by him and almost entirely destroyed.

Ney with the rear guard did not leave Smolensko till the 17th. On the 18th, he found Miloradowitch awaiting him on the bank of the Losmina, with 40,000 men. Refusing to surrender, he attacked the position with 12,000 men in the desperate hope of forcing a passage; not succeeding, he turned off the main road, and crossing the Dnieper in the night on floating pieces of ice, carried off only 3,000 men, without a gun or a horse, through forests and by-roads, incessantly harassed by the Cossacks; finally rejoining the Emperor at Orcha with 1,500—all that now remained to him of the 12,000 whom he had led from Smolensko.

Here the situation of the army was desperate. Scarcely 12,000 men remained fit for duty. Since leaving Smolensko, 10,000 had been killed or drowned, 26,000 had been captured, and 228 guns abandoned. The junction of

Victor here brought an accession of guns and troops ; but there seemed little hope of carrying anything like an organised body out of Russia. For Wittgenstein, with 30,000 men, was coming down on one flank from the north ; Tchitchagoff, with 50,000, barred the only existing passage of the Beresina at Borisov ; while Kutusoff, with the main Russian army, was following in rear.

Napoleon, by a feint, deceived Tchitchagoff as to his intended point of passage, and constructed two bridges with incredible labour at Studianka, above Borisov, the details of which in Thiers are well worth the reading. By forcing his march to the utmost, he had gained two days on the pursuing army ; on the night of the 26th the passage began, and was continued all the 27th and 28th. But surely never before was river passed by an army in such desperate plight. The French were not seriously molested till the 28th, by reason of the absence of Tchitchagoff, who was watching the part of the river below Borisov to which his attention had been directed by Napoleon ; but early in the morning of the 28th, that portion of the army which had already crossed was attacked by Tchitchagoff ; while Wittgenstein, who had by this time arrived, made incessant attacks on Victor, who was charged with covering the rear of the troops who were still crossing : but Kutusoff had not yet come up, as he easily might have done, and he thus lost the third opportunity which had offered during the retreat for capturing Napoleon. Victor held his ground nobly, but was at length overborne by Wittgenstein, whose guns now played on the bridges and on the multitude of stragglers and camp-followers crowded near them. This mass rushed in wild terror on to the bridges, one of which broke under the weight and precipitated all upon it into the half-frozen stream ; Victor then withdrew his troops across the remaining bridge and set it on fire, leaving,

of necessity, a great number of the unhappy followers to the mercy of the enemy on the farther bank. The French army forced a passage through the opposing forces of Tchitchagoff; but from this time all semblance of order was lost, the Grand Army being now represented by a confused mass of 50,000 men, without order or discipline, hurrying in detached groups along the road to Wilna; and although on approaching the frontier numerous detachments joined them on the road, these melted away rapidly under the hardships and the constant attacks of the enemy, so that at length on December 13, 20,000 gaunt and starving men, the only visible remnant of 500,000 who had entered Russia, passed the Niemen at Kowno.

Marshal Ney, with 300 of the guard—who alone preserved any discipline—covered the rear while the rest defiled over the bridge, and was himself the last of the Grand Army to quit the Russian territory.



## CHAPTER IX

## ON THE PASSAGE OF RIVERS.

THE passage of a considerable river in the face of an enemy is one of the most difficult operations of war, if attempted by open force. The examples of this are, however, comparatively few. There are two methods which have usually been employed by offensive armies for the passage of great rivers; viz.,—

1. Wholly by stratagem, in deceiving the enemy as to the intended point of passage, so that he is induced to guard especially one portion of the river to which his attention has been purposely directed by the measures of his opponent, while the latter then effects a passage by surprise at an unguarded point.

2. By a mixture of force and stratagem combined.

Napoleon's passage of the Po, in 1796, at Piacenza; of the Beresina, in 1812; Wellington's passage of the Adour, in 1813; Louis Napoleon's passage of the Ticino, in 1859; and Hooker's passage of the Rappahannock, in 1863; are examples of the first.

Wellington's passage of the Douro, at Oporto, in modern times; Alexander's passage of the Hydaspes, and Hannibal's passage of the Rhone, in ancient history; are examples of the second.

Where any long line is to be defended, whether of a river, or of any other obstacle natural or artificial, such as

a chain of mountains or lines of intrenchment, the advantage is greatly with the assailant. He has the initiative, he forms his plan; his adversary has the more difficult task of divining it correctly and frustrating it. The first employs all the means suggested by his ingenuity and knowledge to deceive the other as to his intentions; and of the many possible or plausible plans—and these are generally many, unless the defender succeeds in penetrating the real one, his precautions are more likely to be injurious than useful. Indeed, it may be asserted that the successful maintenance of any long line by defensive measures alone is generally hopeless. All parts of such a line cannot be equally guarded without such a dissemination of force as would be fatal to the defence of any one point against a vigorous attack.

A river interposing between two hostile armies, acts as a screen to those movements of the assailant which would otherwise reveal his intentions, or which would at least point to some particular portion of the river as the theatre of his efforts. In order that the defence should be successful, that screen must be penetrated by means of simultaneous reconnaissances at many points. Every detachment employed on this service will bring back either positive or negative intelligence of the enemy's movements: positive intelligence—derived from collision or observation, or from the information derived from inhabitants; negative intelligence—derived from the absence of all traces of the enemy in the neighbourhood. It was owing to the neglect of this obvious and indispensable precaution that the Austrian general was so signally outwitted by Louis Napoleon on the Ticino. He did, indeed, push across the Po one armed reconnaissance which fought the battle of Montebello; but, too easily satisfied by the force he there encountered that the efforts of the French pointed to

Piacenza, he unduly neglected the other parts of his line of defence, thus enabling the French Emperor, by a rapid and well-combined flank march, to mass his army on the left and to cross the Ticino without resistance at and about Buffalora. If reconnaissances had been pushed across the river by the Austrians every day at various points distant from each other along their extended line, the French movements would have been discovered, and there would have been ample time to assemble such a force at the decisive point as would have defeated their project.

The commander of an army employed to defend the line of a river should keep his troops in masses, so disposed that they may be able to concentrate rapidly at any point threatened. It is indispensable to success that the defenders should have the means of passing freely in several places to the opposite bank; their light cavalry can then be pushed across to obtain certain intelligence of the enemy's movements as he approaches the river, the banks on the side of the defenders being picketed by light troops. By these means it will be possible to discover, if not the actual spot, yet the general neighbourhood of the spot to which his operations point as that of his intended passage. The endeavour should then be to fall upon him suddenly while in the act of forming his bridge, or at least upon a portion of his army which may have already crossed while still separated from the remainder by the river; and in view of the possible failure of these precautions, the commander of the defensive army should have previously fixed upon and intrenched some strong position in his rear, on the line of the enemy's advance, which should be the point of concentration for his own troops, and where he might successfully dispute the farther progress of the enemy and defeat him with the river in his rear.

It would evidently be unpardonable in a general who is



charged with the defence of a long line so liable to be broken through, to bring his magazines or dépôts close up to that line. These should be so far in rear as to render them perfectly secure from a sudden attack; and all the lines of retreat of the defensive army should be kept free and open, and should be concentric.

Frederick the Great recommends a different plan from the above for the defence of a river, and one which would be certainly more effectual if the circumstances of the defensive army permitted it. His plan was to take post in some strong position *beyond* the river, the passage of which is to be interdicted. In such a case the enemy must either attack you, or he must pass on one side or other of your position in order to reach the river; and this will give an opportunity for attacking him in flank.

The mode of action here indicated is, however, only applicable when the two armies are in presence and actually *feeling* one another. If the enemy should then, by marching to either flank, endeavour to gain the river by a long détour, your light cavalry acquainting you with his movements you can march between him and the stream in a parallel direction, and take up some other position to stop his direct advance when he shall turn again towards his front.

When the enemy finds his approach to the river forbidden by your position, he may send across a detachment to act on your communications. But this he could not do without discovery if your outpost duty is properly performed; and you could always, by means of the bridges and of the shorter line your troops would have to march, be in time to intercept the enemy's detachment.

Frederick the Great declares this method of defending a river to be far more advantageous than any other. But it is evident there are certain indispensable conditions

which may not always, or indeed often, be easy of fulfilment. For, first, prudence exacts that an army which is to accept a battle with a large river in its rear should be provided with a very strong position; secondly, that bridges covered by *têtes de pont* should exist in rear of the position for the retreat of the defensive force; thirdly, that all other bridges to be found within the sphere of operations of the two armies, which the defenders are unable to guard effectively, should be destroyed; fourthly, that all the boats which might be useful to the assailants should be gathered up along that part of the stream to which he has access within the same sphere of operations, and should be kept under guard in rear of the defensive position or at other convenient points.

There is yet one other condition indispensable to the success of such a plan,—that the defensive army should have confidence in itself and in its commander, and that it should not have been disheartened by the hardships and losses of a long retreat. Otherwise, to turn suddenly to offer battle with a river in rear to a superior and confident enemy, would be probably a ruinous procedure with any other than British troops, whose confidence appears to be restored at once by the mere circumstance of facing the enemy. The battle of Corunna was a case in point, where the British army, after a long suffering and demoralising retreat, having the sea behind, yet turned upon an exulting and superior enemy and handled him so roughly that he could not in any way interfere with its embarkation.

In the case where you may be charged with the defence of a long line of river over which you possess several bridges guarded by *têtes de pont*, it would always be advisable to take post behind the river. The bridges in that case are so many avenues for offence against the enemy: analogous to the tactical points of a field of battle, they



are obstacles to his army though not to your own, and they confer the power of operating suddenly against the flanks of any hostile bodies that may approach the stream in their neighbourhood.

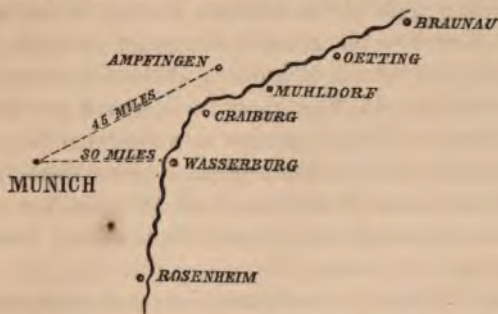
If the enemy should concentrate in front of one of these *têtes de pont*, you may hold him in check with a force sufficient for its defence, while you detach troops across the river by the other bridges to operate on his flank and rear. If he should follow your lead by detaching largely on his side, your troops may then retrace their steps, rapidly concealing their countermarch from the enemy, and your whole force may then debouch from the *tête de pont* and beat his separated fragments in detail.

In short, the possession of *têtes de pont* gives a decided advantage to that one of two hostile armies which holds them. The river forms an impenetrable screen for the movements of that party which holds the bridges, while it is no screen to those of the other. The bridges may be compared to telescopes laid across the river by which the enemy's movements are spied, and to sally-ports by which he can be assailed.

In the campaign of 1800, in Germany, the Archduke John guarded the line of the Inn, on which river he possessed five strong *têtes de pont*—Wasserburg, Craiburg, Muhldorf, Oetting, and Braunau. Moreau, who was opposed to him, committed the mistake of approaching the river with his army distributed over a line of forty-five miles, between Muhldorf and Rosenheim. The Archduke, issuing from his *tête de pont* at Muhldorf with 60,000 men, attacked a French corps under Grenier of 25,000 at Ampfingen in front, while another Austrian column of 20,000, debouching from Craiburg, assailed Grenier in flank and rear. Moreau's dispositions were very faulty. Munich was his pivot of operations; yet he divided his



force along the line between Ampfingen and Rosenheim, while his enemy, holding the bridges of Craiburg and Wasserburg, could operate against the flank of the French corps on the left hand, or against the rear of those



on the right. And the French corps at Ampfingen was actually fifteen miles farther distant from Munich—its immediate base—than the Austrians were at Wasserburg. The consequence was that the French divisions of Grenier, Grandjean, and Hardy, were successively defeated; and but for the want of energy on the part of Archduke John who halted for a whole day after these successes, and thereby gave the French general time to concentrate his army, the latter would have been destroyed in detail.

The manœuvres by which the passage of the Adda was effected by Suwaroff, in 1799, afford a good lesson. The French army, posted behind the river, was disseminated over a line of nearly sixty miles, between Lecco on the left, and Pizzighetone near the confluence of the Adda with the Po, on the right.\* The Allies under Suwaroff were approaching the river on a line perpendicular to its course: if they had directed their march against the centre, the French troops from both flanks might have

\* See Plan 6.

had time to arrive and oppose the enemy with their whole force united. But Suwaroff directed his advance against the left of the French line, and thus, when he was within one march of that flank, the French troops at Pizzighetone were three marches distant from the same point. The French general Serrurier was at Vaprio, holding Brivio by a detachment; General Grenier's division was at Cassano, Victor's at Lodi, and a fourth was at Pizzighetone. Communication between the different divisions was kept up by a chain of posts along the river; but the French scarcely numbered 28,000 men, and were altogether too weak to do more than simply observe so long a line.

Suwaroff directed one column to cross the river at Brivio on Serrurier's left, while a second threatened the front of that general at Vaprio. The last waited until the first, which effected its passage with ease, came down on the left flank of Serrurier, and then crossed in spite of the opposition of the French at Vaprio, who were ultimately forced to surrender. Meanwhile, the mass of the Allied army had been directed against Grenier at Cassano, and compelled him to retire on Milan. The other posts which they held on the river were then abandoned by the French as a matter of course.

Hannibal's passage of the Rhone, and Alexander's of the Hydaspes, were both very similar in principle to the last operation.

Hannibal, in his famous march from Spain to Italy, is supposed to have struck the Rhone at a point about midway between its mouth and its confluence with the Isara, the modern Isère river. He immediately purchased all their boats and vessels of every kind from the inhabitants on the western bank; and having constructed others of the timber which abounded, he in two days possessed

sufficient transport to ferry his whole army to the opposite shore. But there stood the Gauls in great force to oppose him; and his dispositions to effect the passage were as follows:—

He sent off a strong detachment by night with native guides, to ascend the stream for about twenty miles, and then to cross as best they could where there would be no enemy to oppose them. This detachment selected a part of the river where its course was divided into two narrow channels by an island, and there effected their passage without difficulty on rafts which they constructed on the spot.

Hannibal, by previous concert, waited forty-eight hours from the time when the detachment left him; and then, on the third morning from that time, made all his preparations for the passage of his main body. The first division was assembled in the boats and only waited the signal agreed upon to push off. That signal was the smoke of a great fire to be kindled by the detachment which had crossed the river, and which had now marched down to within a short distance of the Gaulish army on the opposite bank, whose whole attention was engrossed by the sight of Hannibal's preparations, and who crowded down to the river-shore to oppose his landing. When columns of smoke rising from behind the Gauls on the opposite bank announced that the detachment was prepared to cooperate, the first division of Hannibal's force pushed into the stream. The Rhone was full and very rapid. The largest and heaviest vessels took the highest place up-stream to serve as a sort of breakwater to the others. The men pulled vigorously against the current, and just as the flotilla was approaching the opposite bank, the attention of the Gauls was attracted by the mass of fire which was now raging behind them; the



detachment which had kindled it charged upon their right flank and rear; and when the flotilla stranded, the soldiers with Hannibal at their head leaping ashore, attacked the bewildered barbarians in front. These made a feeble resistance and fled in confusion. The boats were instantly sent back for the second division, and before nightfall Hannibal's whole army was encamped on the eastern bank of the Rhone.

After crossing the Indus Alexander advanced to the Hydaspes, behind which river he found Porus ready with a formidable army to oppose his passage. He accordingly caused the vessels in which his troops had passed the Indus to be taken to pieces and conveyed to the Hydaspes, where they were again put together and launched. But Alexander did not deem it prudent to attempt the passage by open force, because the river being swollen at that season by the melting of the snows, and there being no fords, his cavalry must have been ferried over on rafts; and he feared that the sight of the elephants, of which Porus had a large number, would so terrify his horses that they would jump off the rafts into the river and be drowned. He therefore had recourse to stratagem.

He encamped his army opposite to that of Porus; and to delude the latter into the belief that he intended to remain there until the fall of the waters should make it easy to cross the river, he collected vast stores of corn in his camp from the surrounding country, and gave out to his own troops that such was indeed his intention. Then, by continual demonstrations at different points along the river, made by troops detached for the purpose, he kept Porus in constant alarm and divided his attention. For many successive nights, too, the Macedonians kept up a great din of preparation at many different points with

loud shouting. Then, when Porus, whose troops had been kept constantly on the move to oppose the threatened attempts, found that nothing came of them, he concluded that these were only feints intended to harass his army, and took no further notice of the nocturnal alarms, being satisfied with placing guards along the bank of the river. He was further confirmed in this error by the reports of his spies that Alexander meditated no hostile movement until the river should become fordable; for the Macedonians themselves being of that belief, could not have revealed their monarch's intentions even though they had wished to do so.

Alexander, having thus accustomed Porus to view without alarm the movement of troops on the opposite bank, formed the following plan:—

On the Macedonian side of the river and eighteen miles above the camp was a large rocky bluff covered with trees; and in front of this, in the middle of the river, was a wooded island. This was selected by Alexander as the point of passage. The bluff would conceal his preparations; the wooded island would conceal the passage of the troops to it from the shore; and the breadth of the stream being thus reduced to one-half, the remainder of the operation might easily be effected by courage and surprise.

Craterus was left in command of the camp with the main body.

Halfway between the camp and the point of passage, a strong body of cavalry and infantry was stationed with boats and all things in readiness to cross.

Alexander's plan was to pass the river at the point chosen, where no serious opposition was to be feared, with a picked force; to march rapidly down the opposite bank, gathering up in his progress the detachment which, on the

Macedonian side, only waited for his appearance to cross over. Alexander judged that Porus would not be likely to adopt the bold resolution of marching against him with his whole force, for fear Craterus with the Macedonian main body should cross in his rear. Alexander, therefore, confident that he could easily beat a mere detachment and drive it back on the position of Porus, expected that monarch would await his attack in that position, and that while Porus was attacked by Alexander from one direction, Craterus could easily master the passage of the river with the Macedonian main body from the opposite side.

In accordance with this plan, Alexander himself led 6,000 foot and 5,000 horse from his camp, and marching at some distance from the river, reached the selected spot unobserved before nightfall. Preparations for crossing were completed during the night, a convenient storm concealing any unusual sounds from the enemy's pickets on the opposite bank. The passage commenced before day-break; the troops reached the wooded island and began to cross the remaining channel before they were perceived by the Indian look-out parties who, being unable to offer any opposition, went off with all speed to warn Porus.

Alexander pushed on towards the Indian camp without losing a moment, and Porus injudiciously divided his force to make head at once against both Alexander and Craterus. Leaving half of his army and all the elephants in his camp to oppose the passage of the latter, he led the remainder against Alexander, was defeated, the disorder communicated itself to the Indian camp in rear, and Craterus then passing over his fresh troops, made a prodigious slaughter of the flying enemy.

The finesse and subtlety displayed by Alexander in this operation are admirable. He neglected no artifice to influence the mind of his enemy, and to induce Porus to



act in the very way that would favour the attempt he was about to make. And it will be remarked that he not only deceived his enemy as to his intentions, but also his own troops, so that a traitor among the latter in betraying his ostensible plan would only have led the enemy astray. Porus was a gallant soldier; but he was unequal to cope with Alexander, or his troops with the Macedonian veterans. Even though he had acted most rigidly on correct military rules, he would in all probability have failed to stop the conqueror on the Hydaspes; for, as has been said, it is very difficult to guard successfully a line of river. But the mistake of Porus was in dividing his force. Directly he heard that Alexander had crossed above, he should have accepted the passage of the river as a *fait accompli*, and should have marched against Alexander without a minute's delay, leaving behind him a mere detachment to delay Craterus by a vigorous opposition. He would afterwards, if successful against Alexander, have turned on Craterus who would meanwhile have passed the river, and would have had an opportunity of defeating him likewise. In point of fact it is likely he would have failed; but his only chance of success consisted in attacking Alexander with the mass of his troops. There could have been no danger to apprehend from Craterus in his rear, if Porus had taken the initiative boldly and without hesitation.\*

*Napoleon's Passage of the Po at Piacenza, 1796.*

The first act of the famous campaign of 1796 terminated with the Treaty of Cherasco, which detached the Sardinians from the Austrian alliance and enabled Napoleon to deal with the latter singly. The object which he proposed to accomplish in the second act of the campaign was to march upon Milan, and to drive the Austrians out of

\* See remarks on a central position, page 138.

Lombardy, which he designed then to organise in the French interest.

In operating from Alessandria and Tortona, which the treaty put into Napoleon's hands, and which places may be considered as the immediate base of the French army, the most direct route to Milan lay across the Po at Valenza; but the road from Valenza to Milan was crossed by several formidable rivers, which would afford the Austrians so many strong positions in which the advance on the capital of Lombardy might be successfully disputed; to say nothing of the difficulty of forcing the passage of the Po at Valenza.\*

Napoleon's plan, therefore, was to surprise a passage of the Po at Piacenza, from which place the road to Milan was clear and easy; and in anticipation of this movement he had caused to be inserted among the articles of the Treaty of Cherasco an express stipulation that the French army should have the right of passage across the Po at Valenza; thereby giving the Austrian general, who would he knew receive instant warning, a definite point on which to concentrate his watchfulness, and turning his attention away from Piacenza.

To confirm his enemy in his false position, the French head-quarters were established at Tortona, and the divisions of the army were distributed as follows:—

Serrurier's division was on the left between Alessandria and Valenza.

Massena's—at the confluence of the Tanaro with the Po.

Augereau's—at the confluence of the Scrivia with the Po.

These generals had orders to collect at these points all

\* See Plan 3.

the boats they could find, as if for the passage of the troops.

The division of Laharpe was at Voghera.

The Austrian general, Beaulieu, fell easily into the snare laid for him so subtly. He turned his whole attention to the part of the river between Valenza and the mouth of the Ticino, and disposed his force accordingly. The Austrian head-quarters with two divisions were at Valleggio; the advanced guard was at Lomello; one brigade at Somma; the division of Liptay was at Pavia; another division, under Colli (a Sardinian), was at Buffalora.

The opposing troops being disposed as above, Napoleon directed to be secretly assembled at Casteggio, on May 5, a picked force of 3,000 grenadiers, 1,500 cavalry, and 24 guns, to form the advanced guard of the army in its intended march to Piacenza.

Staff officers were at the same time sent down the river with small escorts of cavalry to sweep up all the boats that could be found, and to collect them at Piacenza for the passage of the troops.

On the morning of May 6, having confided his intention to no one, Napoleon commenced the general movement.

The advanced guard, accompanied by himself, made a forced march from Casteggio to San Giovanni.

*May 6.*—During the afternoon of the same day and the succeeding night, the different divisions quitting their several camps followed the advanced guard, excepting that of Serrurier which remained on the left near Valenza, both to occupy the attention of Beaulieu and to guard the communications.

*May 7.*—Early in the morning Napoleon with the advanced guard arrived at Piacenza, and found only two squadrons of hussars to oppose his passage of the river. The regular ferry-boat of the town, together with ten other



large boats which had been seized, sufficed to carry across 900 men at one time; and by 2 o'clock P.M. the whole of the advanced guard stood on the north bank of the Po, and a bridge was commenced in their rear.

During the afternoon and night following, the divisions of Laharpe from Voghera, and of Augereau from the Scrivia, arrived respectively at Piacenza and Verato, and immediately began to cross.

While they are engaged in this operation and while Massena is approaching Piacenza from the Tanaro with all possible speed, we turn to the Austrians.

It was only on the morning of this day, just about the time that Napoleon was arriving at Piacenza, that Beaulieu was informed of the movements of his adversary, and discovered that the defensive measures he had adopted in front of Valenza were useless. Hoping he might still be in time to remedy the mischief, he sent orders to Liptay to hasten with his division from Pavia towards Piacenza, and to take post between the Lambro and Adda rivers, for the purpose of covering the direct Austrian communication with Mantua which was by Pizzighetone and Cremona. Beaulieu followed Liptay with the two divisions from Valleggio; the advanced guard from Lomello followed Beaulieu.

About midnight, Liptay from Pavia arrived at Fombio, and immediately began to fortify that village by loopholing the houses, barricading the streets, and planting cannon to sweep the approaches.

That same night, Beaulieu with one division encamped at Corte Olono. He had left the other division at Pavia, to which place also the brigade from Lomello was approaching.

*May 8.*—Early in the morning the French advanced guard under General Dallemagne, advancing to Fombio,

found that place defended by the division of Liptay. The French position was now becoming delicate; it was imperative to carry the village at once, for the delay of a few hours would bring up Beaulieu, and the small portion of the French army now on the north bank of the Po would be exposed to fight a battle against greatly superior forces, with a great river in rear and no bridge as yet completed.

Napoleon reinforced Dallemagne with every man who had up to that moment crossed the river, and Fombio was taken. Liptay retreated to Codogno, and subsequently, on being pressed, to Pizzighetone on the farther bank of the Adda.

During the afternoon the divisions of Laharpe and Augereau completed their passage, and Laharpe was pushed on to Codogno to observe Liptay.

At midnight, Beaulieu on reaching Casal Pusterlengo where the roads from Pavia and Milan join, learnt for the first time the events of the two days, and at the same time that Codogno was in possession of the French who were thus interposed between him and Liptay at Pizzighetone. He attempted to open a passage by the surprise of a night attack; but failing in this, he fell back on the road to Lodi, and directed the march of the remaining Austrian divisions on the same place.

During the night Massena's division crossed the Po at Piacenza.

*May 9.*—This morning the whole French army excepting the division of Serrurier was established solidly on the north bank, and the bridge at Piacenza was completed.

*Louis Napoleon's Passage of the Ticino, 1859.*

Here, as in 1796, the French were opposed to the Austrians; but whereas in 1796 the Sardinians were at the outset active enemies of France in alliance with Austria,

and only reduced to an unwilling neutrality by the defeat they sustained,—in 1859, on the contrary, they were allied with France against Austria.

The positions which were occupied by the hostile armies in 1859, on opposite sides of the Po, bore a striking resemblance to those which were held by the belligerents in 1796, as described above. It is very remarkable to observe how after a lapse of many years the same military events are reproduced, so that hostile armies are found to occupy the same or very nearly the same positions as those which were chosen by the armies of former generations, and how it often happens that the contending parties fight on the very same battle-fields as have been moistened by the blood of their forefathers. A short consideration will show that this resemblance is a matter of necessity, since it arises from the natural physical features of the earth's surface, which do not change, such as the direction of the great rivers, mountain ranges, and the fertility or barrenness of particular districts. These, and the existence of great fortresses, are the conditions which determine the choice and direction of military lines of operation, and even in many cases point out the exact spots where decisive engagements will be fought. Thus, in the Italian campaign of 1859, the eyes of Europe were fixed with interest and expectation on Marengo as the probable scene of a second great battle, and on Piacenza as the scene of a second passage of the principal river of Northern Italy by a second Napoleon. It was this very probability, however, which induced the Austrians to watch that place so closely, that the French Emperor found it easier and safer to break through their line of river defence in another quarter.

The strategical line held at this time by the Austrians was formed by the rivers Sesia and Po, the extreme right



resting on Lake Maggiore, the extreme left being at Piacenza. The general configuration of this line was, therefore, that of two faces of a right angle, of which the Austrians occupied the interior; a great advantage, since their communications between any point on one face and any point on the other face were by the most direct line, while the Allies, being on the exterior, must communicate between the same two points by a march round the whole circumference.

On May 19, the opposing armies were respectively disposed as follows,—

*Austrians.*—Of the six corps composing the Austrian army, four were grouped in the district between the rivers Agogna and Ticino, at Mortara, Garlasco, San Nazzaro, and Cava, respectively; one corps was at Pavia, while the sixth was approaching Piacenza from Milan. One movable column was at Como, while another patrolled along the whole strategical line from right to left, and was at this time about midway between Pavia and Piacenza.

*French and Sardinians.*—Of the five corps composing the French army, the 5th corps was in Tuscany.

The 1st, forming the right, was disposed along the road between Voghera and Alessandria. One brigade of Sardinian cavalry attached to this corps was at Voghera.

The 2nd corps and the guard were at Alessandria and Marengo.

The 3rd and 4th corps were at Bassignana and Valenza.

Between Valenza and Casale were four divisions of the Sardinian army;

And north of the Po, on the Sesia, was a fifth Sardinian division.

It is to be noted that the greater length of the communication between the several parts of their front was compensated to the Allies by the railroad between Stradella

and Alessandria, passing by Voghera; and between Alessandria and Casale, passing by Valenza. It was likewise a great advantage to the Allies that they possessed railroads from Turin, to Alessandria south of the Po, and to Novara passing by Vercelli north of that river; for thereby could be expedited from Turin in either direction, both the necessary supplies, and the troops which were arriving from France by Mont Cenis.

On May 20, the Austrian commander undertook an offensive reconnaissance with 30,000 men towards Montebello from the direction of Stradella, in the neighbourhood of which place this force passed the Po in three columns; they drove the Allied advanced posts from Casteggio, and penetrated beyond Montebello in the direction of Voghera, where they were opposed by part of the French 1st corps from the latter place; and the railroad enabled the latter to be reinforced so speedily, that ultimately the Austrians retreated in the conviction that the French were in great force in that direction; a circumstance which indicated the probability that Louis Napoleon was about to imitate his uncle by a movement on Piacenza.

The very day after the contest at Montebello, in order to confirm the Austrian general in his fears for Piacenza, Louis Napoleon ordered a general movement of his army towards its right: the 1st corps moved from Voghera to Casteggio; the 2nd corps to Voghera, &c.; the 3rd corps to Ponte Corone, &c.; and the removal of the head-quarters was published in the Official Sardinian Gazette of the 25th. Demonstrations were made by the 1st corps towards Stradella, by the 2nd corps towards Pavia, and a feint was made of throwing a bridge across the Po near the confluence of the Ticino.

But during all this time measures were being taken for transferring the army to the extreme left of its strategical

front. Provisions were accumulated at Turin to be forwarded to Vercelli and Novara; and the French artillery and cavalry, which continued to arrive at Susa, were directed on these places.

On the night of the 27th, the general movement commenced towards the left. The 3rd corps, Canrobert's, was transported by rail on the 28th from Ponte Corone to Casale, and took the head of the army, which crossing the Po at Casale, was to move behind the screen of the Sesia on Vercelli. Canrobert's corps with the Sardinian army, on approaching Vercelli, were directed to incline to the right so as to cover the remainder of the French force in passing behind them, and further to push on in the direction of Mortara, so that the Austrians, seeing a portion of the enemy advancing in that direction from Vercelli, might be quite puzzled and misled as to the intentions of the French Emperor.

On May 30, Canrobert with the Sardinians attacked the enemy at Palestro, the mass of the French army being then at or near Vercelli. On the 31st, the combat of Palestro was renewed, and the corps of Niel and MacMahon approached Novara.

The 1st June Niel occupied Novara, but marched out of that place again on the road towards Mortara to a distance of two miles, when he encamped, fronting towards Mortara to mislead the Austrians. MacMahon passed through Novara also, and encamped facing towards Milan. The 1st corps and the guard was in rear of Novara.

The 2nd June the army remained in the above positions, while Espinasse's division of the 2nd corps and Camou's division of the guard were sent forward towards the Ticino respectively in the directions of Buffalora and Turbigo. Espinasse was to obtain possession of the bridge over the Ticino called the bridge of Buffalora. Camou was to



throw bridges across the river near Turbigo, and to occupy that place on the left bank of the Ticino. Both operations succeeded perfectly: the Austrians abandoned the tête de pont at Buffalora bridge on the approach of Espinasse, but failed in their attempt to blow up the bridge which remained thus available for the French. Camou, having with him a large pontoon train, four batteries, and a squadron of cavalry, threw three bridges over the Ticino opposite Turbigo in the afternoon and night of the 2nd; and before daylight on the 3rd, he was firmly established in the village of Turbigo with bridges completed in his rear, and these bridges were even protected already by a hastily-constructed tête de pont. On the morning of the 3rd, MacMahon's corps from Novara was directed on Turbigo: the remainder of the army marched, at 9 A.M., on Buffalora. Espinasse, on being relieved at the bridge by an advanced guard, marched up the right bank of the river to join MacMahon, to whose corps he belonged. About 3 P.M., MacMahon reached the bridges opposite Turbigo, crossed the river, and drove an Austrian battalion, the only hostile troops discovered up to this time, from the village of Robechetto which is about 2,000 yards from Turbigo on the road to Buffalora.\*

On June 4, the order for the movements of the Allies was as follows:—

On the left MacMahon's corps, with Camou's division of the guard, was to march from Turbigo in two columns, the left column on Magenta, the right on Buffalora. MacMahon was to be followed by the Sardinian army, which marched for that purpose on the day previous from Palestro.

In the centre one division of the guard was to cross the Buffalora bridge from Trecate; and while two battalions advanced on the village of Buffalora, the remainder were

\* See Plan 7.

to march on Magenta. These were to be followed by Canrobert's corps, which marched on the previous day from Palestro for that purpose.

The 4th corps, Niel's, and the 1st corps, were to remain in reserve on the right bank of the Ticino;—Niel's at Treceate, about 5,000 yards from the Buffalora bridge; while the 1st corps, on Niel's right, should secure the right flank of the army by explorations in the direction of Mortara.

If the above orders could have been fulfilled, twelve divisions would have taken firm hold of the left bank of the Ticino, operating in two principal columns, from Turbigo and the bridge of Buffalora, on the towns of Buffalora and Magenta; while the six divisions of the 1st and 2nd corps formed a reserve on the right bank, and covered the right flank of the army in its operation. But the Sardinians destined to follow MacMahon, and Canrobert destined to follow closely on the guard, were unable to arrive from Palestro in the time prescribed, and the movement commenced without them.

We now turn to the Austrians. Although the flank movement of the Allies commenced on the 27th, and although the combats at Palestro on the 30th and 31st revealed that the Allies were in force in that direction, it was only on the morning of June 1st that the Austrian General Giulai became aware that strong masses of French troops were marching on Novara. General Zobel, who commanded the 7th Austrian corps which had been engaged at Palestro, proposed to Giulai to assume the offensive with his own, and with the 2nd and 3rd Austrian corps, which could be concentrated in a few hours; at the same time that the corps of Clam Gallas, newly arrived at Milan, should march on Novara by Magenta. Giulai, however, renounced this project, and withdrew his whole army to the left bank of the Ticino on June 2, in the following manner. The

2nd, 3rd, and 7th Austrian corps passed the river at Viganò and marched on Abbiate Grasso. Of these, the 2nd corps was to continue its march to join Clam Gallas at Magenta, and to defend the approach to Milan.

The 5th Austrian corps, from Garlasco, crossed the Ticino in rear of that place with orders to join the 3rd and 7th at Abbiate Grasso. Two of these corps were destined to act against the right flank of the French as they issued from the Buffalora bridge; the third was to connect this operation with that of Clam Gallas.

The 8th Austrian corps was concentrated at Pavia, and the 9th corps was directed on Pavia from Piacenza.

Thus, if these arrangements had been carried out, the French on debouching from the Buffalora bridge would have been opposed by two Austrian corps in front, while they would have had three Austrian corps on their right flank. But the arrangements were not carried out. The 2nd Austrian corps did indeed join Clam Gallas at Magenta on the evening of the 3rd; but the march of the other three corps was delayed, it is said, by the arrival of Marshal Hesse, who not approving the plan, suspended its operation during several hours.

However that may be, on the decisive morning, the 4th, the troops, having marched all night over ground saturated with rain, the positions of the Austrian army were as follows:—

Clam Gallas, with the 1st and 2nd corps, occupied Buffalora and Magenta, as well as the bridge of Magenta and railroad bridge over the canal, and the line of the canal itself, which runs from Buffalora, in front of Magenta, 2,500 yards from the latter place. The right flank towards Cuggiono and Marcallo was covered by four battalions, detached for that purpose.

Half of the 7th corps was at Corbetta, 3,000 yards



in rear of Magenta; the other half was still about Abbiate Grasso.

The 3rd corps was still at Abbiate Grasso.

The 5th corps was still in march from Garlasco on Abbiate Grasso.

The 8th corps, called up from Pavia, was near Binasco, marching towards Magenta.

Thus Giulay had available, at the moment when the struggle was about to commence, only the 1st and 2nd corps under Clam Gallas, and the half of the 7th corps, which was at Corbetta.

But, on the other hand, owing to unforeseen obstacles on their part, the Allies were in a similar condition, and only one-fourth of their army was in hand and available for the attack.

The general account of the battle is, that the right column of attack, directed by Louis Napoleon, was at first outnumbered, and for some hours was in danger of defeat, until the arrival of MacMahon from Turbigo on the enemy's right flank, and that of Canrobert late in the day from Trecate, turned the balance of numbers against the Austrians, and compelled them to yield their positions at Buffalora and Magenta.

That Giulay was out-generated by Louis Napoleon in the above operations, is unquestionable. The French Emperor manifested the highest strategic ability. Natural aptitude and study will confer this, but tactical excellence can only be acquired by practice in connection with peculiar personal attributes, and practice and experience were just the particulars in which the Emperor was wanting; from this fact it probably arose that too much reliance was placed on the punctual arrival of the Sardinians and of Canrobert at the points where they were wanted. If Louis Napoleon had been better acquainted

by experience with the unforeseen delays that always present themselves in the march of a large body of men, he would have allowed a larger margin for the arrival of his distant troops.

The failure of Giulay arose altogether from want of information; how could that information have been obtained? is the question. Not, certainly, by maintaining a quiescent attitude in observation of the long line of river which served as a screen to the movements of his adversary; but by pushing forward feelers through that screen at many different points, to find out what his opponent was doing. On May 30, Zobel's troops were attacked at Palestro, by Canrobert and the Sardinians, and driven from their positions; on the 31st, Zobel attempted to retake those positions, but with an inadequate force, and was repulsed. If, instead of attacking on the 31st with only four brigades, as he did, a position which was occupied by four Sardinian and three French divisions, two Austrian corps had undertaken that operation as they might easily have done, the result to the French army might have been very serious, for the different corps of that army were executing a flank march at that time, in a disconnected manner, behind the screen formed by Canrobert and the Sardinians. It is true, that Giulay undertook one offensive reconnaissance on his extreme left at Montebello, but the result only served to lead him into error, simply because it was a solitary effort.

*Wellington's Passage of the Douro, May 1809.*

The line of the Douro was defended by Marshal Soult, from its mouth up to Pezo, with the view of covering the retreat of his army into the *Tras os Montes*. The line of retreat passed by Amarante, and to cover it from the British, General Loison was posted at Pezo.

Sir Arthur Wellesley operated from Coimbra in two bodies. The right under Beresford consisting of 8,000 men (6,000 were Portuguese), marched upon Pezo by Lamego.

The left under Wellesley, 14,500 infantry, 1,500 cavalry, and 24 guns, marched directly upon Oporto by the coast road.



As one-third of the French infantry was still in advance of the Douro, on the Vouga river, Sir Arthur hoped by a rapid advance to overwhelm it before it could be succoured, or to drive it back on Oporto so rapidly as to arrive on the bridge of that place pell-mell with the flying enemy. But this expectation was disappointed, partly by accident, partly by the skill of the officer in command of the French



troops on the Vouga, who withdrew behind the Douro without loss.

Wellesley now found himself stopped by the river. Soult had broken the bridge, and swept all the boats over to the northern bank. The stream was deep, swift, and more than 300 yards wide, and 10,000 veteran troops guarded the opposite bank. Nevertheless, the English general determined to attempt the passage without delay, for Beresford on the right had taken Pezo, and pushed beyond that place in pursuit of Loison to Amarante, in which isolated position he would have been in great danger if Soult should suddenly evacuate Oporto and withdraw by Amarante to Braganza, before the British army was in a position to pursue closely. On the other hand, if the British could succeed in passing the river at Oporto so as to follow closely on the French in retreat, the best results were to be hoped from Beresford's co-operation.

Had Soult been aware that his line of retreat from Oporto by Amarante had been uncovered by the retreat of Loison from Pezo, he would not probably have delayed his march one moment; but being ignorant of that circumstance, he resolved—the British army being in his front on the night of the 11th—to hold Oporto during the 12th, in order to gain time for his different detachments to concentrate at Amarante.

Soult placed guards at convenient points along the north bank of the Douro, and the division which had retreated from the Vouga was charged with the duty of vigilantly patrolling the course of the river above Oporto; but the French general's attention was principally directed to the river below the city, because the reports of his cavalry led him to believe that Hill's English division had been disembarked at Ovar from the ocean, and he ex-

pected that the empty vessels would come round from that place to the mouth of the Douro, to enable the English force to cross the river there. The fact on which this misconception was based was that Hill's division, during Wellesley's advance, was embarked in boats at Aviero, and navigated the lake to Ovar, where it landed for the purpose of operating against the rear of the French troops on the Vouga.

In this state of affairs, at eight o'clock in the morning of the 12th, Wellesley's force was concentrated at Villa Nova, but was concealed from the view of people in Oporto which was directly opposite, by a rocky height on which stood the Convent of the Serra. The river swept with a sharp elbow round the Serra rock, which with its steep sides formed a sort of peninsula salient towards Oporto, and intercepted all view of the upper river from the town; and Soult, not dreaming of danger above the town, took his station in a house below Oporto, from which he could see the whole course of the river thence to the



mouth, and watched for the expected appearance of the English vessels in that direction. Meanwhile, from the summit of the Serra, Wellesley examined the opposite

bank. He saw horses and baggage moving along the road to Valonga, and the dust of columns apparently in retreat, but no large body of troops near the river; the enemy's guards were few and far between, and a general negligence seemed to prevail in that part. At the same time he observed a large unfinished building, called the Seminary, enclosed by a high wall; and in it he descried the means of assuring the success of the attempt he was about to make. The Seminary was an isolated structure, standing eastward and outside of the town; it had a short easy access from the river; and its surrounding walls, extending to the water on either side, enclosed an area sufficient for two battalions in order of battle: the only egress was by an iron gate opening to the Valonga road, and the building itself commanded everything in its vicinity that was within cannon-shot, except one mound, which was however too pointed to hold a gun. He observed also that guns planted on the Serra hill could flank both the side walls of the enclosure. These were the circumstances which, taken in connection with the fact that the direct line of passage to the building from the Serra was hidden by the rock from the people in the town, determined the English general to attempt the passage, if he could find but one boat. His idea was, that if he could ferry over a few hundred men unperceived, they might, supported by the flanking guns from the Serra, hold the Seminary enclosure sufficiently long to allow of the arrival of other troops. The Seminary would thus act the part of a *tête de pont*, or of the head of a sap, under cover of which boats could pass and re-pass in safety.

The position of the Seminary, too, was of great tactical importance in another sense, for it commanded the direct and only road by which the French artillery could retreat, and the line of retreat of their army generally.



Colonel Waters, the head of Wellesley's Intelligence Department, whose adventures and romantic escapes from the midst of the French army are related in Napier's History, was charged with the service of finding boats. He discovered that during the previous night a poor barber had crossed over from the town in a small skiff, evading the French patrols. In this skiff Waters, aided by the barber and the Prior of Amarante, passed the river, and in half an hour returned with three large barges without having been perceived by the enemy. Meanwhile, eighteen guns were got up to the summit of the Serra; and General Murray was sent, with a force of cavalry and two guns, three miles up the river to Avintas, with orders to pass there if means could be found, with the object of operating against the flank of the French columns when in retreat.

At 10 A.M. it was reported to Sir Arthur Wellesley that the first barge was brought up to the point of embarkation at the foot of the Serra rock, where troops were already assembled. 'Well, let the men cross,' was his order; and a quarter of an hour later the first boatload, consisting of one officer and twenty-five soldiers of the 'Bufs,' was landed in the midst of the French army. The Seminary was thus gained. A second boat followed the first; still all remained quiet in Oporto: a third then passed, but scarcely had the men from this last set foot on shore, when the alarm was given in the city, and confused masses of French troops were soon after seen issuing forth from the streets by the upper ground, and throwing out swarms of skirmishers, who came down furiously against the Seminary. The fire from the guns on the Serra hill, completely sweeping the side walls of the enclosure, compelled the French to confine their attack to the remaining side in which was the iron gate; but the defenders did

not as yet number one hundred men, and the moment was very critical. Paget's and Hill's divisions crowded to the place of embarkation, and boatload followed boatload as rapidly as possible. Paget, on reaching the Seminary, mounted the roof, but was struck down with a dangerous wound, and Hill took his place. The number of the assailants increased rapidly and by masses, while the defence was reinforced slowly and in mere dribblets, and the issue appeared doubtful, when a timely diversion took place in another quarter.

When Paget's and Hill's divisions assembled at the point of passage on the upper side of the Serra rock, Sherbrooke's division was sent down to the site of the old bridge of boats at Villa Nova, which the French had removed to the north bank; and to them some of the citizens brought over several large boats, in which Sherbrooke's men began to cross. This circumstance, and the appearance of General Murray, who had succeeded in passing over his cavalry and guns at Avintas, coming down on the Seminary from the latter place, showed clearly that the passage was won, and that the French had no time to spare if they would insure a safe retreat. And now was seen the tactical value of the Seminary position; for the French troops, hurrying along the road to Valonga, were exposed to a destructive flank fire from the enclosure. So destructive indeed was that fire, that five French guns were left on the road in consequence of the disabling of most of the artillerymen.

After passing the Seminary, too, the French were exposed to be attacked in flank by General Murray's cavalry; but he unaccountably allowed their disordered columns to pass before him, one after another, without making use of even his two guns against them; and although two squadrons of the 14th charged independently

of his orders, they were not supported, and it was only a gallant feat of arms which produced no result. There can be no doubt that if Murray had charged vigorously upon the flank of the retreating columns of the enemy, their discomfiture would have been complete. As it was, they got clear off with a loss of 500 killed and wounded, and of the five guns left on the road. The British loss was only 116 killed and wounded, including one general.

*Wellington's Passage of the Adour, 1814.*

This feat of arms is characterised by the historian of the Peninsular War as a 'stupendous undertaking, which must always rank among the prodigies of war.'

The means by which Wellington effected his design were altogether strategical, for no opposition was encountered in the actual passage. He had matured his plan long before putting it in execution, and the various data on which it was founded are here given.

Soult defended the line of the Adour with about 35,000 men (3,000 being cavalry) and 40 guns. He guarded besides the intrenched camp and citadel of Bayonne, which embraced the confluence of the Nive and the Adour, and was supposed to render that part of the Adour between it and the sea absolutely secure. For the rapidity\* and width of the stream during that part of its course rendered it impossible to bridge it by means of pontoons; and the entrance from the sea, six miles below Bayonne, was over a shallow and shifting bar, on which even during moderate winds there broke a terrible surf, and was so difficult of navigation in consequence of the removal of the landmarks, that it was not by the French thought possible that vessels of a fit size for constructing a

\* The ebb tide there ran seven miles an hour.



bridge could enter that way. Nevertheless, it was the intention of the English general to send vessels into the Adour from the sea, for the purpose of making his bridge; and he had collected in the nearest Spanish port forty large sail-boats, of from fifteen to thirty tons burden, called *chasse-marées*, ostensibly for the commissariat service, which he secretly loaded with planks and other materials. These and some gunboats he designed, with the help of the navy, to run up the Adour to a certain point upon which he meant also to direct the troops and the artillery; and then with hawsers, and rafts formed of pontoons, a body of troops should be ferried over who should capture an enemy's battery which existed on the other side and cover the formation of the bridge. He trusted to the greatness and apparently insurmountable difficulty of such an attempt to escape active opposition from the enemy; and in this he was favoured by fortune.

Wellington's ulterior object was to gain Bordeaux and the line of the Garonne; but Bayonne, and Soult's army on the Adour in its neighbourhood, were obstacles which must first be removed. It was, therefore, necessary to drive or tempt the French army from the neighbourhood of Bayonne, and to besiege or effectually blockade that fortress. To do the latter, it required to invest the town on the north as well as on the south bank; and the immediate object of the bridge over the Adour was to facilitate this operation, and to provide a secure communication between the two portions of the investing force that would, in that case, be separated by the river.\*

By choosing a part of the river above Bayonne the material difficulties would have been far less formidable, but many good reasons were against such a course.

\* See Plan 1.

First, Soult's attention was entirely given to the river above the town, from a belief that the remainder was secure for reasons above given.

Secondly, the assembling of the pontoons and boats for a bridge, and the transportation of these overland, in itself a great operation, would inevitably attract attention to the design and render it abortive.

Thirdly, supposing the bridge constructed successfully above Bayonne, the communication between the investing force on the north of Bayonne and the magazines of the army on the sea-coast would be difficult and precarious, because the convoys would have to make a long circuitous flank march before the fortress, passing the Nive as well as the Adour, and liable to interruption from the overflowing of those rivers; besides the necessity this line would entail of an increase to the investing force on the south side, to protect the convoys from sudden sallies of the garrison. Such a long line, too, would demand an amount of transport which the army did not possess, and could with difficulty provide.

Fourthly, if obliged from any cause to abandon the siege or blockade, the line of retreat from the north side, passing round the enemy's garrison, would have been insecure.

All the above difficulties would be obviated by the choice of the lower part of the river. In this case the Adour itself would be Wellington's harbour, and his supplies would be brought by water close up to the positions of the troops.

But it was necessary to fix Soult's attention on some point distant from that where the bridge was to be constructed. After deducting the troops employed before Bayonne, St. Jean Pied de Port, and Navarren, Wellington had about 60,000 men available for field operations. His adversary had 35,000 only, but these were behind a great

river, and resting on a fortress that was impregnable until it was invested. The object of Wellington's manœuvres was to detach Soult's army from the support of the fortress, so as to deal with fortress and army separately. While Beresford's corps, therefore, held in check the French right on the Adour above Bayonne, Hill's corps—by passing in succession near their sources the different important rivers which run from the Pyrenees into the Pau, and which were successively occupied by the French left wing—Hill's corps constantly outflanked the French left and threatened to cut their line of retreat on Toulouse. This obliged Soult to draw his troops to a head at Orthes, and to fight that battle to preserve his line of retreat. The battle of Orthes was fought on February 27. On the 25th, the last French troops had abandoned the Adour with the exception of the garrison of Bayonne; and during the progress of the movements, the preparations for the formation of the bridge below Bayonne had been completed, and the passage finally accomplished on the 24th and 25th in the following manner.

The military part of the operation was intrusted to Sir John Hope, who had at his disposal about 28,000 men and twenty guns. This force occupied a position in front of the intrenched camp of Bayonne, its right flank resting on the river Adour above the town, its left on the coast. On February 15, one division had been pushed forward to the heights of Anglet, about three miles from the intrenched camp, and seven miles from that part of the river where the passage was to be attempted. These troops appeared to menace an attack on the camp, and under cover of this demonstration, small parties were cautiously pushed towards the river through the pine forest called the wood of Bayonne, which extended from near Anglet to the bank of the stream.



During the night of the 22nd, the division at Anglet with six eighteen-pounders cautiously filed off towards the Adour, and reached the river at daybreak. Their place was taken on the heights of Anglet by other troops: false attacks were kept up during the morning from this point as well as along the front towards the Adour, thereby withdrawing the attention of the garrison from what was going forward on the river below the town; and thus the pontoon train and field artillery reached the point of passage unobserved.

It was intended that the arrival of the gunboats and *chasse-marées* at the mouth of the river should have been simultaneous with that of the troops, but contrary winds had delayed them, and Sir John Hope determined to attempt the passage without their cooperation.

Two French gunboats and a sloop of war opened fire on his columns about 9 A.M., but they were soon silenced by the eighteen-pounders which had been placed in battery on the bank, and obliged to retire up the river. Meanwhile, sixty men of the Guards were rowed in pontoons across the mouth of the river in the face of a French picket, which retired without firing. A raft was then formed with the remainder of the pontoons, and a hawser being stretched across, 600 of the Guards and 60th regiment, with part of the rocket battery, the whole under Colonel Stopford, passed over during slack water. Two French battalions detached from the garrison which made a show of attacking Stopford, were driven back by the fire of the rocket battery, and additional troops were brought over during the night of the 23rd, and until noon on the 24th, when the flotilla was seen under a press of sail making with a strong breeze for the mouth of the river.

Being ignorant of the proper channel, and there being

a terrible rolling surf, several boats were swamped and their crews drowned; but the greater part passed the bar safely. By this time, however, 8,000 men had been brought over, who completed the investment of the fortress on the north side, and the work of the flotilla was limited to the construction of the bridge which was to assure the communication with the south bank. The place chosen for the bridge was about three miles from the town, at a point where the stream was contracted to a width of 800 feet by retaining walls: and the bridge itself, as having been one of the most remarkable military bridges ever constructed, justifies a short description.

Twenty-six *chasse-marées*, moored head and stern with their lengths in the direction of the stream, and forty feet apart from centre to centre, were bound together with ropes; two thick cables were then carried loosely across their decks from one bank to the other, the ends of which were made fast to either shore. These cables had sufficient slack to meet the spring tides, which rose fourteen feet; they took the place of the longitudinal timbers or balks of the bridge, and the planks were laid transversely upon them.

The bridge so formed was then protected above and below by a boom of ingenious construction. Two lines of masts, one above, one below the bridge, extended from one shore to the other; and these were connected with chains and cables so as to form a succession of squares, each vessel of the bridge being in its own square. Gunboats, with aiding batteries on the banks, were then stationed to protect the boom; and to keep off fire-vessels, rowboats furnished with grappling-irons were constantly in readiness.

The success of this undertaking is certainly to be ascribed to the negligence of the French commandant of

Bayonne, arising from over-security. It was a well-ascertained fact that, owing to the agitation of the water in the river from every storm and to the force of the tides, it was impossible to maintain upon it so light a structure as a pontoon bridge; and he believed, moreover, that the danger of navigating over the bar would deter vessels fit for the construction of a bridge from entering from the sea.

If the French general had kept strong guards with a couple of field-batteries on the right bank of the Adour near the mouth, it is obvious that neither could Sir John Hope have passed over his troops on pontoons, nor could the flotilla have crossed the bar, and the attempt must consequently have failed.

*Passage of the Rappahannock by General Hooker,  
April 1863.*

This operation manifested higher military qualities than any which had previously been undertaken by the United States forces, and is instructive on account of the secrecy, rapidity, and energy of the different movements.

General Hooker's force, consisting of seven corps d'armée, lined the Rappahannock in front of Fredericksburg, and for some distance on either flank.\*

It is difficult to speak with any certainty as to the position and strength of the Confederates. They were commanded in chief by General Lee, and Stonewall Jackson was one of his subordinate generals; both affording a guarantee that neither watchfulness, skill, nor *dash* would be wanting to oppose any aggressive movement that might be undertaken by the enemy.

The part of the stream which appears to have been specially guarded by the Confederates extended from United States ford, at the junction of the Rapidan with

\* See Plan 8.



the Rappahannock, that is to say, about twelve miles above Fredericksburg; to Port Royal, about twenty miles below. General Anderson guarded the United States ford with two brigades. Jackson's corps seems to have been posted in observation on the river from Port Royal to Fredericksburg. The main force of Confederates was on the heights overlooking that town, which had been the scene of their easy victory over General Burnside. Their position was formed by an amphitheatre of hills surrounding Fredericksburg, resting on the river above and below the town, but leaving between their foot and the river a plain of about seven miles long and one mile and a half wide. The crest of the hills was thickly studded with Confederate batteries whose converging fire crossed over the plain in their front, and the problem which Hooker had to solve was, to cross the Rappahannock and advance on Richmond without being obliged to assault this formidable position and at the same time without unduly exposing his own line of retreat.

Although his plan had been long matured, and for many days only awaited favourable weather for its execution, he seems to have taken no person into his confidence. In general terms his measures were calculated to induce Lee to concentrate in the Fredericksburg position by a cunningly devised demonstration in that quarter, while he intended to pass the mass of his army over the river at Kelly's ford, 27 miles up stream, and to place it in such a position as should threaten the enemy's communications with Richmond, and would so compel Lee either to retreat upon that city or to march to attack the Northern army in a chosen position prepared for defence. It was at the same time a necessary condition that the Confederates should not be able to intercept the communication between that position and Washington without leaving open the road to Richmond.

Such a position was found at Chancellorsville, about ten miles to the west and somewhat to the south of Fredericksburg. If the Northern army could be placed there with its left resting on the Rappahannock covering Bank's ford, it is evident they would threaten the flank and rear of Lee's position at Fredericksburg, while their own communications would be by Bank's and United States fords, where pontoon bridges would be constructed and maintained. But if the enemy should attack and drive back Hooker's left beyond Bank's ford, then only United States ford would be left for the retreat of his army: and if, to go further, the enemy could gain possession of United States ford as well, the Northern army would be entirely cut off from Washington.

These were the data on which Hooker formed his plan, and we now come to the manner of execution.

On *Sunday* 26th April, Meade's, Slocum's, and Howard's corps of Hooker's army marched up the river, their movement being concealed by woods and broken ground from the observation of the Confederates on the other side. Their destination was Kelly's ford.

On *Monday* Couch's corps followed these; its destination was United States ford, which it reached the same evening.

The same night Sedgwick's and Reynolds's corps quitted their camp, and marched to points respectively two miles and three and a half miles below Fredericksburg, which they reached before daylight.

Sickle's corps took post between Falmouth and Bank's ford, for the purpose of maintaining the connection between the separated portions of the Northern army and of covering the communication with Washington.

*Tuesday*.—Early in the morning the three first-named corps reached Kelly's ford, and immediately commenced the construction of a pontoon bridge.



Early in the morning likewise the two corps below Fredericksburg commenced their operations. The river was there fringed with a curtain of hills on both sides. Fords existed opposite both corps, and these fords were, like all others on the river, guarded by small Confederate detachments dispersed in double rows of rifle-pits. Under cover of a very thick fog, the pontoons which accompanied both corps were taken from their wagons and carried down on men's shoulders to the water, where they were noiselessly launched. These were immediately manned by troops who, rowing over, succeeded in capturing the rifle-pits and most of their defenders with small loss. At both places a brigade was passed over; a lodgment was thus effected and strengthened assiduously by working parties, who connected the rifle-pits by earthen parapets, and bridges were immediately commenced in the rear. Three bridges were soon completed by Sedgwick's and two by Reynolds's corps, and one complete division from each crossed the river, and were employed in strengthening the intrenchments on the south bank which served as *têtes de pont*. The four remaining divisions of these two corps remained on the north bank, and an ingenious ruse was practised to deceive the enemy into the belief that the greater part of the Northern army was there massed with the intention of crossing. It is to be noted that from the configuration of the ground the enemy could not see the bridges, neither could they see the four divisions on the north bank, which were behind the fringe of hills aforesaid. These troops were then put in motion, and mounting the ridge which sloping both ways served as a screen, marched along the top in full view of the Confederates, and then dipped down out of sight towards the bridges. Instead of crossing these, however, they turned back through a gully round the rear of the ridge, round again on to the top, and again disappeared from



sight to play the same game; just the same evolution as is practised by the 'brave army' on the stage of a theatre, and with the same intent of deceiving the spectators as to their numbers. The like stage effect was practised by the artillery and wagon trains, until the Confederates had seen defile before them a force which they might well conclude to be the whole Northern army. The effect on the Confederates was prompt, for in two hours columns of their troops were seen marching on the Fredericksburg position from the direction of Port Royal. These belonged to Jackson's corps, which was called in to concentrate. So much for the extreme left of the Northern army.

During the night which followed, on the extreme right, the three corps at Kelly's ford were engaged in marching over their one pontoon bridge.

*Wednesday.*—Howard's and Slocum's corps, now on the south bank of the Rappahannock, were marching from Kelly's ford to Germania ford on the Rapidan river; Meade's corps was in march from the same place to Ely's ford, also on the Rapidan, about eight miles from Germania ford and four miles from United States ford at the mouth of the same river.

Couch's corps was still at United States ford, behind the Rappahannock which there divided him from General Anderson's Confederate brigades. Sickles's corps was still between Bank's ford and Falmouth. Sedgwick and Reynolds were at their respective bridges below Fredericksburg, having each an advanced guard of one division guarding the *têtes de pont* on the opposite bank.

When the troops from Kelly's ford arrived at Germania ford, they surprised a party of a hundred and fifty Confederates in the act of building a bridge; and both there and at Ely's ford the Northern troops passed the Rapidan without difficulty or resistance.

*Thursday.*—The troops which had crossed the Rapidan (two corps from Germania ford, one corps from Ely's ford) converged on Chancellorsville, where they were joined the same evening by Couch's corps from United States ford; for the Confederate general Anderson who guarded that point was of course obliged hastily to withdraw so soon as he learned that Northern troops were crossing the Rapidan in his rear.

Hooker's arrangements had so far been crowned with complete success. His artifices had kept Lee's army in mass behind Fredericksburg, their eyes anxiously turned towards the north-east, while he placed four corps d'armée, numbering at least 70,000 men—a greater force than the whole Confederate army—on the left rear of the latter, threatening their communication with Richmond. At the same time Sedgwick and Reynolds below Fredericksburg were in readiness to cross the river and act against the rear of General Lee, supposing the latter to move against Hooker. There is no doubt Lee was taken entirely by surprise by the apparition of Hooker at Chancellorsville. As has been said more than once, the best general can hardly hope to guard successfully a long line of river; sufficient if his arrangements are such as to make his enemy pay dearly for having crossed it.

Lee did not hesitate a moment. Leaving a small force in the Fredericksburg position, he withdrew from thence the greater portion of his troops and guns and massed them in front of Hooker, so as to interpose between the latter and Richmond.

Hooker's line formed two sides of an equilateral triangle, Chancellorsville being the apex; the sides were each about three miles long, the right resting on Hunting creek, an affluent of the Rapidan; the left resting on the Rappahannock near Bank's ford.



On *Friday* there were some slight and partial encounters at different points along the front.

On *Saturday* the Confederates attacked with their usual impetuosity. Stonewall Jackson, making an extraordinary flank march through the woods without artillery, assailed the extreme right of the Northern army, completely routed the corps of Howard which was opposed to him, took twelve guns, and established himself firmly across the ground which had been vacated by the runaway troops of Howard—that is to say, on the right flank and somewhat in rear of the Northern line—intending next day to roll that line up on its centre if it awaited attack in that position. But here a shot from his own troops, fired after dark as he was returning from a reconnaissance, gave him the wound of which he shortly after died.

The night was spent by Hooker in effecting that new disposition of his force which the position of Jackson's corps rendered imperative. He drew back his right to Ely's ford, his troops working hard till morning to intrench themselves; and Reynolds's corps, which had been ordered up from below Fredericksburg, having crossed at United States ford, took the place of Howard's corps on the extreme right—the latter being sent to the left where there was less probability of hard fighting.

In another quarter during this day General Sedgwick having ascertained, by means of a balloon ascent, that a very small force of Confederates and but few guns remained in his front in the Fredericksburg position, attacked and carried the heights.

*Sunday*.—Lee again attacked Hooker at Chancellorsville, and so crippled him as to render any offensive movement by the latter an impossibility.

*Monday*.—Leaving a force to watch Hooker, Lee marched against Sedgwick who was advancing from



Fredericksburg to Hooker's aid—defeated Sedgwick, and drove him across the Rappahannock at Bank's ford, with very heavy loss.

*Tuesday.*—Lee returned to Chancellorsville, designing to attack Hooker again on the following day, but the latter had already sent his trains and wounded back over the river, which was rising rapidly in his rear; and favoured by a violent storm, the whole Northern army regained the northern bank of the Rappahannock during the night.

No military body ever passed a river in such desperate circumstances as the French at Beresina; pursued as they were by a vindictive and superior force in their rear, and headed by another army likewise superior, which was posted on the farther bank to bar their passage.\*

Napoleon has signalised another operation of a similar nature in the passage of the Danube from the island of Lobau, in 1807. On this island Napoleon had collected 150,000 foot, 30,000 horse, and 750 guns, within a space of two miles and a half long by one and three-quarters wide.

This was the second and concluding part of an operation which had been commenced by the passage from the right bank to the island of Lobau, thence to the left bank of the Danube, and was followed by the battle of Essling, in which Napoleon being defeated, he withdrew his army into the island of Lobau. Five weeks were then spent by the two opposing armies in preparations for a renewal of the contest. The island was covered with French intrenchments, and their grand bridge of communication with the mainland in their rear—the destruction of which during the battle of Essling had, by detaining their rein-

\* See chapter on *Retreats*.

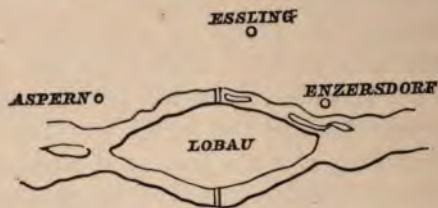
forcements, principally occasioned the loss of that battle—was placed beyond the reach of injury.

The Austrians meanwhile had not been idle. They had constructed a series of strong intrenchments at the villages of Aspern, Essling, and Enzersdorf, and between those places, enveloping the bridge by which the French had communicated with the north bank in the first passage of the river; but one weak point was left in their armour, which Napoleon detected and struck at. The Archduke Charles, concluding that the passage if attempted at all would be by the old bridge, turned all his attention towards that one point; and although he had connected the three villages by intrenchments, he had neglected to intrench the ground between Enzersdorf and the Danube, and having determined not to oppose the commencement of the passage, but to assail the French when a part of their army should have completed it, and the remainder were *in transitu*, the main Austrian army was withdrawn to some distance from the river, and a corps of 20,000 men alone, under General Klenau, was left opposite the bridge and to guard the intrenchments.

Napoleon's intention was to pass over from the eastern extremity of the island of Lobau to the north shore near Enzersdorf, and he constructed three movable bridges for that service, which were kept concealed from the observation of the Austrians in one of the narrow channels formed by smaller islands in front of Lobau. Then, to deceive his adversary, he caused a second bridge to be constructed near the old one, and ordered a small island which was held by the Austrians, and which would apparently facilitate the crossing in that quarter, to be assailed and taken.

When all was ready, on the afternoon of the 3rd July demonstrations were made of passing the bridges, which drew the attention of the Austrians and the fire from

their batteries to that part; and after dusk the three movable bridges were silently placed opposite to Enzersdorf, and the passage commenced. Favoured by a tempestuous night, a large part of the French army had



crossed before morning and established themselves in the village of Enzersdorf, where they surprised and captured a body of the enemy's troops. The passage continued all day, and before the next morning the whole French army with its artillery was formed on the north bank of the Danube, their left resting on the river, and their line taking the Austrian intrenchments in reverse, and rendering them useless.

In all the examples which have been cited, the passage of the river was won either altogether by stratagem, or by a mixture of stratagem and force. In all cases the first lodgment was effected by turning away the attention of the defenders from the point of passage; and, indeed, where a considerable river is in question, unless the first lodgment can be made and strengthened without opposition, an attempted passage must fail. The first attempt must generally be made with partial or accidental means—such as boats, rafts, or flying-bridges, which require of course to be concealed from the enemy until the moment of using them.

The great Napoleon laid it down as a general rule, that the passage of any river by main force is only justifiable



when the bank on your side of the river commands the other, and the river is of such a width only as to permit your guns to range far beyond the opposite shore, because in that case your guns can protect the lodgment of the troops who first cross. He said, moreover, that 500 yards was the extreme safe limit of breadth, because where the river exceeds that width, the enemy's troops could easily shelter themselves from the fire of your batteries, and yet remain within reach to oppose a landing; but '*nous avons changé tout cela,*' and so far as that consideration alone is involved, the river might be 2,000 yards wide, other things being favourable. Yet it will be prudent not to enlarge Napoleon's limit for more reasons than one. For first, a bridge would be difficult to maintain over a wider stream; secondly, the troops would present a mark while being ferried over for a dangerously long time to the enemy's artillery; thirdly, the troops who crossed first would be too far removed from support.

It is essential that the ground on the opposite bank of the river should in some way offer advantages for the resistance of the advanced guard while effecting its lodgment. These may consist in any accidentally strong ground; or such a circumstance as the existence of the seminary which protected the British lodgment at Oporto; or in a bend in the course of the river, salient towards yourself, such that batteries planted along the sides of the bend may, by crossing their fire, protect a space on the opposite bank—the larger the better—for the formation of the troops which first cross.

As soon as the offensive army has acquired a firm footing on the farther bank, a bridge is commenced to provide the means of retreat, and this bridge must not only be protected during its formation, but during the whole time that the offensive army remains on that bank

of the river. The bridge must not only be defended so as to prevent the enemy from obtaining possession of it, but it must be protected from the enemy's artillery; and to fulfil these requirements intrenchments are constructed which bear the name of *têtes de pont*.

A *tête de pont* may consist of a simple intrenchment covering the head of a bridge to serve a temporary purpose; or it may assume the importance of an intrenched camp where it is designed to assure the permanent possession of a bridge during a campaign. Here field-works only are spoken of, for every fortified town possessing a bridge over a considerable river serves as a *tête de pont* to that bridge; and where the fortifications embrace both sides of the river, the town then serves the purpose of a double *tête de pont*.

The problem to be solved in the construction of a *tête de pont*, intended to be permanent during a campaign, is, that the works shall cover a sufficiently large space in front of the bridge to admit of the whole army being drawn up behind them in order of battle, and shall yet be capable of being defended by a comparatively small force. As the bridge must be secured from the fire of the enemy's artillery, either it must be defiladed from that fire by a work specially constructed, or the works must be sufficiently far in advance to keep the enemy's artillery beyond effective range of the bridge. Here evidently the increased range of guns, and the usual configuration of ground in the neighbourhood of any river, present a serious difficulty; and the only formation of ground favourable to such an object would be one where the bridge-head is covered by heights which command all the country beyond them and intercept all view of the bridge.

The nature of the works to be constructed is another question for consideration; but it may be said generally



that a system of detached enclosed works, occupying the most commanding points and affording a mutual defence, is far to be preferred to a continuous line. For the tête de pont must be defensible by a small force, in order to set the main army at liberty to operate elsewhere; whereas a continuous line requires to be occupied at all points in nearly equal strength; and if one point be forced the whole line falls. As a battle position for an army detached works have a manifest advantage; they cover the flanks of the troops drawn up between them, and yet do not, like continuous lines, impede those troops from taking the offensive at any favourable moment, the power to do which is the soul of a successful defence.

The establishment of têtes de pont may be considered generally as part of an offensive scheme, inasmuch as they are intended to enable the army possessing them to make an offensive movement; and if offence were not intended the bridge would be destroyed in place of being fortified. It has been already pointed out how great is the advantage to an army engaged in defending a long line of river to possess bridges which would enable them suddenly to take the offensive.

It is only in the case where a river runs parallel to your line of operations, as the Danube for instance in Napoleon's two advances on Vienna in 1805 and 1809, that double têtes de pont become of great importance, as enabling the army possessing them to change the side of operations at will, whether acting offensively in advance, or defensively in retreat. In the former case, if the enemy being beaten on one side of the river should succeed in transporting his army to the other bank, you may follow him to that side by means of one of your bridges, and he cannot escape from your hold unless he too possesses double têtes de pont. In the latter case, if retreating



before a victorious enemy, you can always place the river between the two armies: if he endeavours to follow by passing the stream by improvised means, you oppose the passage; and should he succeed in effecting it in spite of your opposition, you pass back again to the other bank.

It must be evident that the improved artillery greatly increases the difficulty of such an offensive operation as the passage of a river in presence of an enemy; for the transport of troops across the river in boats, as well as the construction and maintenance of a bridge, become far more difficult than of old, in proportion to the increased distance from which the point of passage can be fired upon by the enemy's batteries planted on the bank of the river, either up or down stream.

The important influence which may be exercised on the success of military operations by rivers, is admirably illustrated by a plan of campaign on the Sutlej, which was drawn up in anticipation of hostilities by the late General Sir William Napier at the commencement of the first Sikh war, of which the following is an abstract:—

1. To cover and protect our country, that is, the country between Sirhind and Delhi, &c., and to prevent the enemy's cavalry from ravaging it and raising insurrections in Oude, Gwalior, &c., it is imperative to take up a defensive position, unless we resolve to declare war, pass the Sutlej, and march on Lahore. But that defensive position should also be an offensive position, if action should become necessary; and how to combine those requirements without losing sight of military principles, is the problem to be solved.

We have on the Sutlej the posts of Loodiana and Ferozepore; but the latter is only a military point, too distant to be easily succoured, and so placed as to give all advantages of ground to the Sikhs. For they can menace it from Lahore with their whole army in two marches,

and either attack and overwhelm it; or, continuing their straight course up the Sutlej to Loodiana, menace or attack that point, passing their irregular cavalry (20,000) over the Sutlej, and spreading it over the country between that



river and Delhi. Or they might thus employ their cavalry alone, while their regular army simultaneously attacked Loodiana and Ferozepore. The British army, if it attempt to succour both these places, must divide, and the portion moving by long marches to Ferozepore must lend its right flank to the Sutlej which is fordable in many places, a proceeding contrary to all military rules; and neither that portion nor the one employed to succour Loodiana could prevent the cavalry from crossing on both flanks, without a dangerous dissemination of force; for the Sikhs, covered from observation by the Sutlej, would have the power of uniting their army in two marches at either point, to overwhelm one of our separated portions at the same time that their irregular cavalry turned our flanks and acted on our communications.

2. Ferozepore, though an important post with reference to Lahore, and to the communication with Scinde, is beyond the sphere of operations of our main army. It should be made sufficiently strong to protect, from anything but a regular siege, the troops and stores and the boats there collected for bridging the Sutlej, which is at Ferozepore 270 yards wide. It should be occupied by a corps of observation composed of all arms, and commanded by an able officer who should be free to act on his own discretion in any way circumstances might dictate. The place, in short, should be considered as an isolated self-dependent point.

3. The base of the main army, or rather its place of arms, should be Sirhind—fortified so as to resist the enemy's cavalry, and to protect the depôt of stores which should be there formed for the supply of the troops.

4. There should be a powerful advanced guard in Loodiana; an intrenched camp being there constructed which would afford protection to the troops, and to the boats which should be collected for bridging the Sutlej at that point also. A field pontoon train should be placed in Loodiana for ulterior operations, and meanwhile the cavalry should be disposed along the river above and below.

To recapitulate.—The main body of the army by the above arrangements would be at Sirhind. At Loodiana, the advanced guard with a field pontoon train; boats for a bridge over the Sutlej would be drawn up on the south bank ready to be placed across the river, and the whole protected by an intrenched camp. The whole of the cavalry would line the banks of the Sutlej above and below the town. At Ferozepore, an independent force of all arms, with boats for a bridge drawn up as at Loodiana,



under the protection of the guns of the place, which has been made strong enough to resist any sudden attack.

5. In the above state of affairs, suppose the Sikh cavalry should attempt to cross the Sutlej above or below Loodiana, ours would be on the watch to meet him. If they passed above, not only our cavalry on the river, but also the Sirhind force and the Loodiana force converging against them, would enclose them between the river and the mountains. If they should pass below, then our cavalry in that quarter would cooperate with the same forces from Loodiana and Sirhind, and with the Ferozepore force also, if that place was not threatened, to enclose them between the desert and the river.

6. Suppose (as was actually the case) that the whole Sikh army should keep together. Lahore ought to be swarming with our spies, and the moment the Sikh army should receive its pay and ammunition, and march towards the Sutlej, war should be taken for granted. The troops at Sirhind should then move up to Loodiana; our cavalry along the river should be called into the same place; and Ferozepore being left to its own resources, the boat bridge should be thrown across at Loodiana, the army should cross the river, and taking with it the pontoons, march down the right bank to the Byas river, bridge that stream, taking post there *à cheval*, and sending forward all the cavalry and light guns to ascertain the whereabouts of the Sikh army. If that army should already have passed the Sutlej, half a march would place all its communications, reserves, and stores, in our power; and we could, at our option, either follow it to the left bank or march on Lahore. Now, Lahore is the heart of the Sikh body, and the distance to it from our supposed bridge over the Byas is only two marches, whereas the Sikhs must make four or five marches to reach Sirhind or

Umballa, which are by comparison only the British extremities. If, when we should arrive at the Byas, the Sikh army had not already passed the Sutlej, it would not dare to do so with the Ferozepore corps in its front, and the main British army on its flank and rear. Negotiations might then be commenced, or if that should not be desirable, everything would be in favour of the British.

7. For if the Sikhs turned on the army at the Byas, they would find it in position behind that river, with a free retreat to Loodiana; and the Ferozepore force, throwing its boat bridge across the Sutlej, would act against their rear.

Or if, as is more probable, the Sikhs fell back and intrenched themselves in front of Lahore, the whole British force could be united in their front in two days, and deliver battle having Lahore as the prize of victory; and, in case of defeat, having the bridges of Ferozepore and Loodiana for retreat; these bridges being meanwhile secured from the possible attempts of irregulars by withdrawing them, until needed, to the British side of the river.

The above scheme, besides being one from which any person may take a lesson, illustrates especially the subject of this chapter. Here the two rivers, Sutlej and Byas, suggest the plan; the three points, Ferozepore, Loodiana, and the confluence of the rivers, are the pivots round which all the movements turn; while the movable bridges of Ferozepore and Loodiana, and the field bridge accompanying the army, are the means of executing those movements. And thus it is that the great natural features of the earth's surface, which to common minds only present themselves as obstacles, become for the man of genius the surest means of victory.

## CHAPTER X.

## ON FOREST AND MOUNTAIN WARFARE.

TWO bodies of the same strength opposed to each other in a wood are upon equal terms, so far as concerns the advantages of cover; but there may be a wide difference in the capacity of the combatants to turn those advantages to the best account. In this respect there is no comparison between trained and raw troops; the latter are certain to suffer defeat and heavy loss, even though superior in numbers. There are, however, other causes which confer a decided superiority on one of two opposing bodies, although equal in numbers, courage, and discipline. Of these, knowledge of the localities is the most important. In an open country, a battle may be fought by the light which ocular demonstration throws on the field where two armies are about to engage, and generally without any serious mistake arising from unexpected accidents of ground. In woods, however, it is far otherwise; there you grope as it were in the dark, your vision limited within a very narrow compass; and a body of troops, ignorant of the localities, must advance like blind men feeling their way with great caution and reserve; while the party which is acquainted with the wood and its various paths fights at its ease and with a clear vision. Thus, it is easy to understand, that a knowledge of the ground will compensate a great inferiority of numbers.



It is commonly owing to the fact that one of the combatants, being on the defensive, has had time to explore and to organise a wood or forest as part of a defensive position or as an entire position, as in the case of the Austrians at Hohenlinden, that a superior knowledge of the local features is acquired; and it is evident, that where an accurate knowledge of the intricacies of a wood is combined with defensive operations, the advantage to the defensive force must be very decided. Held as a part of a position therefore, a wood, if properly utilised for defence, may be held by a force very inferior to that with which an enemy must attack it, thereby enabling the defensive line to be proportionally reinforced.

A wood may be merely a passive obstacle to an assailant, on account of its absolute impenetrability, or of its extent and ordinary difficulties. The first would prevent him from attacking at all in that quarter. The last, if he did attack there, would impose on the assailant loss of time, which would be a gain to the defensive force, inasmuch as the latter could employ it to make counter dispositions to defeat the enemy's intention so soon as it should become apparent. Or the passiveness of the protection afforded by such an obstacle to a defensive force may be aided by active defence.

Thus, a wood which is very thick with underbrush, or which is full of swamps and morasses, so as to be impervious to a large body of troops, would afford a passive protection to the flank of an army resting on it, or to any portion of the front before which it extends. In either case, the edges of the wood in the direction of the enemy's advance might advantageously be occupied by skirmishers, provided measures were taken to secure their retreat to the general line.

Again, a wood, though not impenetrable but only or-

dinarily difficult, if it be of considerable extent, may afford protection to a flank, on account of the time which a hostile force would require to traverse it; but prudence would here prescribe that the flank should be additionally covered by a line of abattis, or felled trees, curving round to the rear; and where, from the extent of the wood, it would not be advisable to occupy its outer edge, it would be sufficient to form the abattis at any convenient distance beyond the flank which it is designed to protect. In this case an assailant would have free access through the wood, impeded only by its natural difficulties and by the blocking-up of the paths where time has permitted, and would only find his progress actively opposed on reaching the abattis.

The late experience of the battle of Chancellorsville goes to show, that against an enterprising enemy it is not safe to depend on the passive protection afforded by woods, however extensive, if they are not also absolutely impenetrable. The defeat of the right flank of the Northern army was occasioned by an over-security, which led them to rely on the cover afforded by the woods, without intrenching. Stonewall Jackson cut a way through the thick forest which covered the right flank of the Northern army, by which he brought up his whole corps, and attacked and carried that part of the position.

If a wood be of small extent, then although a flank may rest upon it more labour must be expended. The assailant should, in this case, meet with active opposition at the outer edge of the enclosure, which should be strongly intrenched; and be exposed to a fire in approaching it; and one or more lines of defence, according to its size, may be prepared in the interior of the wood between its edge and the flank which rests upon it. But it may be considered that where a wood is of small extent, unless



the nature of the ground should forbid such a proceeding, an assailant would prefer to turn rather than force such an obstacle. In this case, the outer edge of the wood should be strongly occupied, so as to oblige the attacking troops to make a long circuit on the penalty of suffering from the fire which would be directed on their flank from the enclosure. Troops posted in rear of the wood with some cavalry, in readiness to meet such a turning movement, would in conjunction with the fire from the enclosure render such an attempt eminently hazardous.

The existence of a wood in front of a line of battle is a protection to that part of the line which it covers. It comes within the category of tactical points, which have been sufficiently remarked upon in the chapter on the Defence of a Position. Occurring in a part of the line itself, it gives strength to that part, in accordance with the spirit of the remarks on page 109 of the same chapter. Its natural advantages enable the defenders to hold it with a comparatively weak force, but these should be improved by art, in strengthening the edges towards the enemy.

In occupying a wood or forest as a defensive position, precisely the same rules are applicable as in every military operation. Secure protection to the flanks, strength to the front, free lateral communication, and numerous and easy avenues for retreat, should be combined to as great an extent as possible with impediments to the advance of an enemy. The outer edge will be usually defended by skirmishers, and one, two, or even three lines of defence may be formed in rear, by constructing breastworks of felled trees, and by cutting down trees in front to a distance of a hundred yards; thereby forming an abattis or entanglement at the outer edge of which the assailants would find themselves stopped under the fire from the breastworks behind, both of musketry and grape. The



roads by which the enemy might bring up guns against the first line of defence should be effectually blocked; while a way for the retreat of your own guns from that line to the other lines in succession, and to the rear, should be opened if it does not already exist. Lateral communications should be opened along the rear of each line of defence, if necessary; but where roads exist which traverse the forest parallel to your general front, the line of breastworks should be formed just in advance of these roads, so as to utilise them as means of lateral communication. Be it remarked, that the avenues which you employ for retreat from one line to another will be the only means of approach open to the enemy, and for him they will be defiles of the most dangerous description, where his crowded columns will be exposed to the fire of musketry and grape from the breastworks or intrenchments.

The existence of a large wood or forest behind a military position, through which infantry cannot move easily, and without roads for the marching of cavalry and artillery, is as dangerous to the army occupying that position as a large and dangerous river would be. Where infantry can move easily, and roads exist for the passage of horses and guns, the case is reversed. The forest would then become the means of covering the retreat of a beaten army.

The Duke of Wellington was much blamed by French military critics for taking a position at Waterloo, with the forest of Soignies stretching behind it along the greater part of its length, and being between one and two miles in breadth. The Historian of the Peninsular War refuted the same charge brought forward by an English writer, in a letter from which the following is extracted:—

‘Lord Wellington asserted that the wood would have

covered his retreat. Napoleon asserted that it would have prevented all retreat. Between such authorities it is dangerous to offer an opinion. Nevertheless, it may, I think, be shown that Napoleon was not so well entitled to speak authoritatively as the Duke on this particular point. There is no doubt that a close wood would greatly impede the retreat of a beaten army. There is no doubt that Napoleon was the man, of all others, who gave his enemy least hope of escape. There is no doubt that the French are the most dangerous soldiers in a pursuit, that the world can produce!

‘But the wood of Soignies was open. There was no brushwood, no difficulty for infantry, and not much for horsemen, to pass through it, and it was pierced by broad highways. Now then let us see what might have been done in case of disaster; and first of all the writer should learn that an army may be beaten and yet not dispersed. Seldom does it happen that a disciplined army is so completely broken that neither rear guard nor reserve are left to cover the rout; and of no troops may it be more safely predicated than of the English, that there will be many men to turn and die in opposition rather than in flight. In all pursuits the cavalry are the most formidable, because most rapid. The infantry, tired with a long battle, heavily loaded, and probably wanting ammunition, move slowly on, and scarcely see a retreating enemy after the latter have fairly turned their backs. The Duke of Wellington never spoke of flight; he knew his troops too well; he was only considering an orderly retreat in the presence of a daring enemy. What then could the French cavalry have done? Wellington would have sent his artillery and all his disordered troops by the high roads, and then, forming a rear guard of the best men, have filled the wood on each side of those



roads. If the French cavalry charged among the trees, their destruction was certain. If they pushed along the road, the fire of the men from each side would be fatal to them. The British rear guard must, therefore, have been attacked with infantry and artillery; but this would have required some disposition, which always costs time, and as the battle was not decided until the evening, it is but reasonable to suppose that night would have set in before they could be entirely dislodged. The Duke would thus have gained several hours and his retreat, so far as the wood was concerned, would have been secure.'

The defence of a long line of forest country, like that of a line composed of any other natural obstacles, whether rivers, mountains, or deserts, is difficult in proportion to the number of practicable passages; for the assailant, having the initiative, may by feints deceive the defenders, and induce them to concentrate at one point, while the mass of the attacking force is directed rapidly against some other.

The passage by an army of any one of the great natural obstacles above enumerated is analogous to that of the others. The bridges by which great rivers are spanned, the principal roads which traverse the forests, the mountain passes, and desert tracks, all have this in common, that they are of the nature of defiles.

But the analogy between forest and mountain warfare is especially strong. Mountain ranges are traversed by passes; forests, by roads and paths; some of these being well and generally known, others being secret and known only to a few. In both cases the vision of the traveller is very limited, and an enemy may be very close without any visible sign of his neighbourhood being apparent. In mountain warfare an enemy may be marching along a valley parallel to that in which a defensive force is moving or



troops on the Vouga, who v  
without loss.

Wellesley now found him  
Soult had broken the bridge,  
to the northern bank. The  
more than 300 yards wide,  
guarded the opposite bank.  
general determined to attempt  
for Beresford on the right l  
beyond that place in pursuit  
which isolated position he  
danger if Soult should sud  
withdraw by Amarante to l  
army was in a position to p  
hand, if the British could su  
Oporto so as to follow close  
the best results were to be  
operation.

Had Soult been aware t  
Oporto by Amarante had b  
of Loison from Pezo, he wou  
his march one moment; bu  
cumstance, he resolved—the  
front on the night of the 11t  
12th, in order to gain time  
to concentrate at Amarante.

Soult placed guards at  
north bank of the Douro,  
retreated from the Vouga v  
vigilantly patrolling the cou  
but the French general's att  
to the river below the city  
cavalry led him to believe t  
been disembarked at Ovar

pected that the empty vessels would come round that place to the mouth of the Douro, to enable an English force to cross the river there. The misconception which this misconception was based was that Hilson, during Wellesley's advance, was embarked at Aviero, and navigated the lake to Ovar, where it was for the purpose of operating against the rear of the troops on the Vouga.

In this state of affairs, at eight o'clock in the morning of the 12th, Wellesley's force was concentrated at Vila Nova, but was concealed from the view of Porto Oporto which was directly opposite, by a rocky headland which stood the Convent of the Serra. The river Douro with a sharp elbow round the Serra rock, which steep sides formed a sort of peninsula salient to Porto, and intercepted all view of the upper river from the town; and Soult, not dreaming of danger above the town, took his station in a house below Oporto, from which he could see the whole course of the river thence



mouth, and watched for the expected appearance of English vessels in that direction. Meanwhile, from the summit of the Serra, Wellesley examined the op

throw bridges across the river occupy that place on the left b operations succeeded perfectly the tête de pont at Buffalora Espinasse, but failed in their att which remained thus available having with him a large pontoon a squadron of cavalry, threw th opposite Turbigo in the aftern and before daylight on the 3rd in the village of Turbigo with rear, and these bridges were e hastily-constructed tête de pon 3rd, MacMahon's corps from N bigo: the remainder of the ar Buffalora. Espinasse, on bein an advanced guard, marched u to join MacMahon, to whose 3 p.m., MacMahon reached the crossed the river, and drove an hostile troops discovered up to of Robechetto which is about on the road to Buffalora.\*

On June 4, the order for th was as follows:—

On the left MacMahon's cor the guard, was to march from ' left column on Magenta, the rig was to be followed by the Sard for that purpose on the day pr

In the centre one division c Buffalora bridge from Trecate advanced on the village of B

\* See P



to march on Magenta. These were to be followed by Canrobert's corps, which marched on the previous day to Palestro for that purpose.

The 4th corps, Niel's, and the 1st corps, were to be in reserve on the right bank of the Ticino;—Niel's corps, about 5,000 yards from the Buffalora bridge, and the 1st corps, on Niel's right, should secure the right flank of the army by explorations in the direction of MacMahon.

If the above orders could have been fulfilled, the divisions would have taken firm hold of the left bank of the Ticino, operating in two principal columns, from the bridge of Buffalora, on the one hand, and the towns of Buffalora and Magenta; while the six divisions of the 1st and 2nd corps formed a reserve on the right bank, and covered the flank of the army in its operation. But the Sardegnian corps, destined to follow MacMahon, and Canrobert destined to follow closely on the guard, were unable to arrive at Palestro in the time prescribed, and the movement commenced without them.

We now turn to the Austrians. Although the movement of the Allies commenced on the 27th, and though the combats at Palestro on the 30th and 31st revealed that the Allies were in force in that direction, it was only on the morning of June 1st that the Austrian General Giulay became aware that strong masses of French troops were marching on Novara. General Zobel, who commanded the 7th Austrian corps which had been engaged at Palestro, proposed to Giulay to assume the offensive with his corps, and with the 2nd and 3rd Austrian corps, which were concentrated in a few hours; at the same time the 1st corps of Clam Gallas, newly arrived at Milan, should march on Novara by Magenta. Giulay, however, renounced the project, and withdrew his whole army to the left bank of the Ticino on June 2, in the following manner.

2nd, 3rd, and 7th Austrian corps vano and marched on Abbiate G corps was to continue its march Magenta, and to defend the app

The 5th Austrian corps, from C in rear of that place with orders Abbiate Grasso. Two of these against the right flank of the F the Buffalora bridge; the third w with that of Clam Gallas.

The 8th Austrian corps was c the 9th corps was directed on P

Thus, if these arrangements French on debouching from th have been opposed by two Au they would have had three Au flank. But the arrangements w 2nd Austrian corps did indeed j on the evening of the 3rd; but t corps was delayed, it is said, by t who not approving the plan, sus several hours.

However that may be, on the the troops, having marched al rated with rain, the positions as follows:—

Clam Gallas, with the 1st Buffalora and Magenta, as wel and railroad bridge over the canal itself, which runs from B 2,500 yards from the latter pla Cuggiono and Marcallo was c detached for that purpose.

Half of the 7th corps was

in rear of Magenta; the other half was still about Grasso.

The 3rd corps was still at Abbiate Grasso.

The 5th corps was still in march from Gar Abbiate Grasso.

The 8th corps, called up from Pavia, was near marching towards Magenta.

Thus Giulay had available, at the moment when the struggle was about to commence, only the 1st corps under Clam Gallas, and the half of the 7th which was at Corbetta.

But, on the other hand, owing to unforeseen circumstances on their part, the Allies were in a similar condition; only one-fourth of their army was in hand and was not fit for the attack.

The general account of the battle is, that the main column of attack, directed by Louis Napoleon, was first outnumbered, and for some hours was in danger of defeat, until the arrival of MacMahon from Turin turned the enemy's right flank, and that of Canrobert, who came from Trecate, turned the balance of the battle against the Austrians, and compelled them to yield their positions at Buffalora and Magenta.

That Giulay was out-generaled by Louis Napoleon in the above operations, is unquestionable. The Emperor manifested the highest strategic ability. Great aptitude and study will confer this, but tactical execution can only be acquired by practice in connection with peculiar personal attributes, and practice and experience were just the particulars in which the Emperor was wanting; from this fact it probably arose that too much reliance was placed on the punctual arrival of the Prussians and of Canrobert at the points where they were wanted. If Louis Napoleon had been better acquainted



by experience with the unfor-  
present themselves in the marc  
he would have allowed a larger  
his distant troops.

The failure of Giulay arose a  
formation; how could that inform  
is the question. Not, certainly  
cent attitude in observation of tl  
served as a screen to the movem  
by pushing forward feelers thro  
different points, to find out wha  
On May 30, Zobel's troops were  
Canrobert and the Sardinians  
positions; on the 31st, Zobel  
positions, but with an inadequat  
If, instead of attacking on the 31  
as he did, a position which was c  
and three French divisions, two  
taken that operation as they m  
result to the French army migh  
for the different corps of that ar  
march at that time, in a disconr  
screen formed by Canrobert ar  
true, that Giulay undertook on  
on his extreme left at Montel  
served to lead him into error,  
solitary effort.

#### *Wellington's Passage of th*

The line of the Douro was de  
from its mouth up to Pezo, with  
retreat of his army into the Tra  
retreat passed by Amarante, ar  
British, General Loison was post

Sir Arthur Wellesley operated from Coimbra bodies. The right under Beresford consisting of men (6,000 were Portuguese), marched upon P Lamego.

The left under Wellesley, 14,500 infantry, 1,500 c and 24 guns, marched directly upon Oporto by the road.



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Wellesley now found himself that Soult had broken the bridge, and retreated to the northern bank. The stream was more than 300 yards wide, and the British guarded the opposite bank. The general determined to attempt to force Beresford on the right hand, beyond that place in pursuit of which in that isolated position he was in danger if Soult should suddenly withdraw by Amarante to Braganza. The army was in a position to pursue him on hand, if the British could succeed in reaching Oporto so as to follow closely on the heels of the best results were to be hoped from this operation.

Had Soult been aware that the British had reached Oporto by Amarante had been aware of Loison from Pezo, he would not have delayed his march one moment; but in the circumstances, he resolved—the British moved forward on the night of the 11th–12th, in order to gain time for the army to concentrate at Amarante.

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pected that the empty vessels would come round that place to the mouth of the Douro, to enable the English force to cross the river there. The fallacy of which this misconception was based was that Hill's mission, during Wellesley's advance, was embarked in the *Principe* at Aviero, and navigated the lake to Ovar, where it was to be employed for the purpose of operating against the rear of the Portuguese troops on the Vouga.

In this state of affairs, at eight o'clock in the morning of the 12th, Wellesley's force was concentrated at Vila Nova, but was concealed from the view of people at Oporto which was directly opposite, by a rocky height on which stood the Convent of the Serra. The river Douro, with a sharp elbow round the Serra rock, which with its steep sides formed a sort of peninsula salient to Oporto, and intercepted all view of the upper river from the town; and Soult, not dreaming of danger above Oporto, took his station in a house below Oporto, from which he could see the whole course of the river thence to



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When Paget's and Hill's point of passage on the upper shore, Sherbrooke's division was seen, the old bridge of boats at Villa Rica was removed to the north bank.

The citizens brought over several hundred men, and Sherbrooke's men began to cross. The appearance of General Murphy, passing over his cavalry and guns, on the Seminary from the left, showed the passage was won, and the French were spared if they would insure a safe retreat. The tactical value of the French troops, hurrying along, was exposed to a destructive flank attack. The destruction was indeed that which was feared, and many were left on the road in consequence of the want of the artillerymen.

After passing the Seminary, the French were exposed to be attacked in flank by the cavalry; but he unaccountably refused to permit his columns to pass before him, and he made no use of even his artillery, although two squadrons of the



of his orders, they were not supported, and it was a gallant feat of arms which produced no result. It can be no doubt that if Murray had charged boldly upon the flank of the retreating columns of the enemy, their discomfiture would have been complete. As it was, they got clear off with a loss of 500 killed and wounded, and of the five guns left on the road. British loss was only 116 killed and wounded, including one general.

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Wellington's ulterior object was to cut the line of the Garonne; but to do this on the Adour in its neighborhood must first be removed. It was to drive or tempt the French army from Bayonne, and to besiege the fortress. To do the latter, the town on the north as well as the south was the immediate object of the bridge. To facilitate this operation, and to cut the communication between the two ports, that would, in that case, be secured.

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river, and resting on a fortress it was invested. The object of it was to detach Soult's army from the fortress, so as to deal with fort. While Beresford's corps, there French right on the Adour above by passing in succession near the important rivers which run from Pau, and which were successively left wing—Hill's corps constantly left and threatened to cut their line. This obliged Soult to draw his troops back and to fight that battle to prevent it. The battle of Orthes was fought on the 25th, the last French troops with the exception of the garrison. The progress of the movements, the formation of the bridge below was completed, and the passage finally effected on the 25th in the following manner.

The military part of the operation was conducted by John Hope, who had at his disposal a force of about twenty guns. This force occupied the intrenched camp of Bayonne on the river Adour above the town. On February 15, one division held the heights of Anglet, about two miles from the intrenched camp, and seven miles from where the passage was to be effected. The appearance of this force appeared to menace an attack on the intrenched camp, and covered this demonstration, and was pushed towards the river through the wood of Bayonne, which extended to the bank of the stream.

During the night of the 22nd, the division at Anglet with six eighteen-pounders cautiously filed off towards the Adour, and reached the river at daybreak. The place was taken on the heights of Anglet by other troops. False attacks were kept up during the morning from the point as well as along the front towards the Adour, thus withdrawing the attention of the garrison from what was going forward on the river below the town; and thus the pontoon train and field artillery reached the point of passage unobserved.

It was intended that the arrival of the gunboats *chasse-marées* at the mouth of the river should have been simultaneous with that of the troops, but contrary winds had delayed them, and Sir John Hope determined to attempt the passage without their cooperation.

Two French gunboats and a sloop of war opened fire on his columns about 9 A.M., but they were soon silenced by the eighteen-pounders which had been placed in a battery on the bank, and obliged to retire up the river. Meanwhile, sixty men of the Guards were rowed in five pontoons across the mouth of the river in the face of a French picket, which retired without firing. A raft was then formed with the remainder of the pontoons, and a hayrack being stretched across, 600 of the Guards and 60th regiment, with part of the rocket battery, the whole under Colonel Stopford, passed over during slack water. The French battalions detached from the garrison which made a show of attacking Stopford, were driven back by the fire of the rocket battery, and additional troops were brought over during the night of the 23rd, and until noon on the 24th, when the flotilla was seen under full sail making with a strong breeze for the mouth of the river.

Being ignorant of the proper channel

bank. He saw horses and baggage on the road to Valonga, and the dust of their retreat, but no large body of troops. The enemy's guards were few and far apart, and negligence seemed to prevail in their ranks. At the time he observed a large unfinished building, the Seminary, enclosed by a high wall, and the means of assuring the success of the attack about to make. The Seminary stood on a hill standing eastward and outside of the town, with easy access from the river; a path leading extending to the water on either side, sufficient for two battalions in column. Egress was by an iron gate open at the top, and the building itself commanded the vicinity that was within cannon range, which was however too pointed to be served also that guns planted on the hill, on both the side walls of the enclosure, in the circumstances which, taken in connection with the direct line of passage to the town, were hidden by the rock from the enemy. He mined the English general to find out he could find but one boat. His plan was to ferry over a few hundred men, supported by the flanking guns, to the Seminary enclosure sufficiently to hold out of other troops. The Seminary was to be of a tête de pont, or of the head of a bridge, which boats could pass and retreat from.

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a terrible rolling surf, several of their crews drowned; but they were brought over safely. By this time, however, the boats were brought over, who completed the work on the north side, and the work was then turned to the construction of the bridge. The communication with the south side was not interrupted for the bridge was about three miles long at the point where the stream was crossed. It was raised six feet by retaining walls: and it has since been one of the most remarkable structures ever constructed, justifies a short description.

Twenty-six *chasse-marées*, or floating bridges, of their lengths in the direction of the stream, were apart from centre to centre, and were supported by ropes; two thick cables were stretched across their decks from one bank to the other, and they were made fast to either shore, and were allowed slack to meet the spring tide. When the tide was low they took the place of the lower deck of the bridge, and the planks were laid across them.

The bridge so formed was supported by a boom of iron below by a boom of iron of masts, one above, one below, and one on each side, one shore to the other; and the masts were by chains and cables so as to form a sort of a frame, and each vessel of the bridge being a vessel of war, with boats, with aiding batteries, and gunboats stationed to protect the boom, and the gunboats furnished with guns in readiness.

The success of this undertaking was attributed to the negligence of

Bayonne, arising from over-security. It was a well-attained fact that, owing to the agitation of the water in the river from every storm and to the force of the tides, it was impossible to maintain upon it so light a structure as a pontoon bridge; and he believed, moreover, that the danger of navigating over the bar would deter vessels from the construction of a bridge from entering from the river.

If the French general had kept strong guards with a couple of field-batteries on the right bank of the Aisne near the mouth, it is obvious that neither could Sir John Hope have passed over his troops on pontoons, nor could the flotilla have crossed the bar, and the attempt would consequently have failed.

*Passage of the Rappahannock by General Hooker  
April 1863.*

This operation manifested higher military qualities than any which had previously been undertaken by the United States forces, and is instructive on account of the secrecy, rapidity, and energy of the different movements.

General Hooker's force, consisting of seven corps d'armée, lined the Rappahannock in front of Fredericksburg, and for some distance on either flank.\*

It is difficult to speak with any certainty as to the position and strength of the Confederates. They were commanded in chief by General Lee, and Stonewall Jackson was one of his subordinate generals; both affording a guarantee that neither watchfulness, skill, nor *dash* would be wanting to oppose any aggressive movement that might be undertaken by the enemy.

The part of the stream which appears to have been specially guarded by the Confederates extended from the United States ford, at the junction of the Rapidan with

\* See Plan 8.



the Rappahannock, that is to say, to Fredericksburg; to Port Royal. General Anderson guarded the two brigades. Jackson's corps in observation on the river from burg. The main force of Confederates overlooking that town, which was an easy victory over General Buell. It was formed by an amphitheatre of hills overlooking burg, resting on the river above, leaving between their foot and the river seven miles long and one mile wide. The hills were thickly studded with guns, whose converging fire crossed the river, and the problem which Hooker had to solve, the Rappahannock and advance, was obliged to assault this formidable position without unduly exposing his flank.

Although his plan had been in the air for days only awaited favourable circumstances, it seems to have taken no particular form. In general terms his measures were to concentrate in the Fredericksburg position, a cunningly devised demonstration intended to pass the mass of the army at Kelly's ford, 27 miles up stream, to a position as should threaten Richmond, and would serve as a base upon that city or to march to a chosen position prepared for the event. At the same time a necessary condition that he be able to intercept the communication between the position and Washington with a view to Richmond.

Such a position was found at Chancellorsville, a ten miles to the west and somewhat to the south of Fredericksburg. If the Northern army could be placed with its left resting on the Rappahannock covering Bank's ford, it is evident they would threaten the flank and of Lee's position at Fredericksburg, while their own communications would be by Bank's and United States fords where pontoon bridges would be constructed and maintained. But if the enemy should attack and drive Hooker's left beyond Bank's ford, then only United States ford would be left for the retreat of his army: and go further, the enemy could gain possession of United States ford as well, the Northern army would be entirely cut off from Washington.

These were the data on which Hooker formed his plan, and we now come to the manner of execution.

On *Sunday* 26th April, Meade's, Slocum's, and Howard's corps of Hooker's army marched up the river, their movements being concealed by woods and broken ground, and the observation of the Confederates on the other bank. Their destination was Kelly's ford.

On *Monday* Couch's corps followed these; its destination was United States ford, which it reached the same evening.

The same night Sedgwick's and Reynolds's corps quit their camp, and marched to points respectively two and three and a half miles below Fredericksburg, where they reached before daylight.

Sickle's corps took post between Falmouth and Bank's ford, for the purpose of maintaining the connection between the separated portions of the Northern army and of covering the communication with Washington.

*Tuesday.*—Early in the morning the three first-named corps reached Kelly's ford, and immediately commenced construction of a pontoon bridge.

Early in the morning the  
Fredericksburg commenced  
was there fringed with a c  
Fords existed opposite both  
like all others on the river, g  
detachments dispersed in dou  
cover of a very thick fog, the  
both corps were taken from t  
on men's shoulders to the wat  
launched. These were imme  
rowing over, succeeded in cap  
of their defenders with small  
gade was passed over ; a lod  
strengthened assiduously by v  
the rifle-pits by earthen para  
diately commenced in the re  
completed by Sedgwick's and  
one complete division from es  
employed in strengthening th  
bank which served as têtes c  
divisions of these two corps  
and an ingenious ruse was pr  
into the belief that the great  
was there massed with the i  
be noted that from the con  
enemy could not see the brid  
four divisions on the north  
fringe of hills aforesaid. Th  
motion, and mounting the ri  
served as a screen, marched  
the Confederates, and then dir  
the bridges. Instead of c  
turned back through a gully  
round again on to the top,



sight to play the same game; just the same evolution practised by the 'brave army' on the stage of a theatre, with the same intent of deceiving the spectators as to the numbers. The like stage effect was practised by artillery and wagon trains, until the Confederates had defile before them a force which they might well conclude to be the whole Northern army. The effect on the Confederates was prompt, for in two hours columns of the troops were seen marching on the Fredericksburg position from the direction of Port Royal. These belonged to Jackson's corps, which was called in to concentrate. much for the extreme left of the Northern army.

During the night which followed, on the extreme right the three corps at Kelly's ford were engaged in march over their one pontoon bridge.

*Wednesday.*—Howard's and Slocum's corps, now on the south bank of the Rappahannock, were marching from Kelly's ford to Germania ford on the Rapidan river. Meade's corps was in march from the same place to Ely's ford, also on the Rapidan, about eight miles from Germania ford and four miles from United States ford at the mouth of the same river.

Couch's corps was still at United States ford, behind the Rappahannock which there divided him from General Anderson's Confederate brigades. Sickles's corps was still between Bank's ford and Falmouth. Sedgwick and Reynolds were at their respective bridges below Fredericksburg, having each an advanced guard of one division guard the têtes de pont on the opposite bank.

When the troops from Kelly's ford arrived at Germania ford, they surprised a party of a hundred and fifty Confederates in the act of building a bridge; and both there and at Ely's ford the Northern troops passed the Rapidan without difficulty or resistance.

*Thursday.*—The troops w  
(two corps from Germania f  
converged on Chancellorsvi  
the same evening by Couc  
ford; for the Confederate g  
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soon as he learned that Nor  
Rapidan in his rear.

Hooker's arrangements h  
complete success. His arti  
mass behind Fredericksbur  
towards the north-east, whil  
numbering at least 70,000  
whole Confederate army—  
threatening their communic  
same time Sedgwick and E  
were in readiness to cross

rear of General Lee, suppo  
Hooker. There is no dou  
surprise by the apparition  
As has been said more th  
hardly hope to guard suc  
sufficient if his arrangem  
enemy pay dearly for havir

Lee did not hesitate a m  
in the Fredericksburg posi  
the grèater portion of hi  
them in front of Hooker,  
latter and Richmond.

Hooker's line formed two  
Chancellorsville being the  
three miles long, the righ  
affluent of the Rapidan; t  
nock near Bank's ford.

On *Friday* there were some slight and partial encounters at different points along the front.

On *Saturday* the Confederates attacked with unusual impetuosity. Stonewall Jackson, making an ordinary flank march through the woods without artillery, assailed the extreme right of the Northern army, completely routed the corps of Howard which was opposed to him, took twelve guns, and established himself far across the ground which had been vacated by the routed troops of Howard—that is to say, on the right flank somewhat in rear of the Northern line—intending day to roll that line up on its centre if it awaited attack at that position. But here a shot from his own troops, after dark as he was returning from a reconnoissance, gave him the wound of which he shortly after died.

The night was spent by Hooker in effecting that new position of his force which the position of Jackson's corps rendered imperative. He drew back his right to the Rappahannock ford, his troops working hard till morning to intrust themselves; and Reynolds's corps, which had been ordered up from below Fredericksburg, having crossed at Upper States ford, took the place of Howard's corps on the extreme right—the latter being sent to the left where there was less probability of hard fighting.

In another quarter during this day General Sedgwick having ascertained, by means of a balloon ascent, that a very small force of Confederates and but few guns remained in his front in the Fredericksburg position, attacked and carried the heights.

*Sunday*.—Lee again attacked Hooker at Chancellorsville, and so crippled him as to render any offensive movement by the latter an impossibility.

*Monday*.—Leaving a force to watch Hooker, Lee marched against Sedgwick who was advancing from



Fredericksburg to Hooker's and drove him across the Rappahannock, a very heavy loss.

*Tuesday.*—Lee returned to attack Hooker again on the 12th. The latter had already sent his troops to the river, which was rising and was favoured by a violent storm, and regained the northern bank of the river the next night.

No military body ever passed under such circumstances as the French army did in 1807. They were by a vindictive and superior army, headed by another army, and were posted on the farther bank of the river.

Napoleon has signalised his military nature in the passage of the Danube at Lobau, in 1807. On this is a bridge 150,000 feet, 30,000 horse, and of two miles and a half long and wide.

This was the second and last battle which had been commenced on the left bank to the island of Lobau, on the Danube, and was followed by the battle of Wagram, which Napoleon being defeated, he retreated into the island of Lobau. For the two opposing armies in the contest. The island was fortified with trenchments, and their garrisons with the mainland in their rear. It was during the battle of Essling

\* See chapter

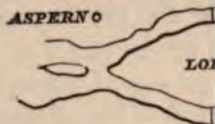
forcements, principally occasioned the loss of that battle, was placed beyond the reach of injury.

The Austrians meanwhile had not been idle. They constructed a series of strong intrenchments at the villages of Aspern, Essling, and Enzersdorf, and between these places, enveloping the bridge by which the French communicated with the north bank in the first passage of the river; but one weak point was left in their army, which Napoleon detected and struck at. The Archduke Charles, concluding that the passage if attempted at all would be by the old bridge, turned all his attention towards that one point; and although he had connected the two villages by intrenchments, he had neglected to intrench the ground between Enzersdorf and the Danube, and having determined not to oppose the commencement of the passage, but to assail the French when a part of the army should have completed it, and the remainder were *transitu*, the main Austrian army was withdrawn to some distance from the river, and a corps of 20,000 men alone, under General Klenau, was left opposite the bridge and guard the intrenchments.

Napoleon's intention was to pass over from the eastern extremity of the island of Lobau to the north shore near Enzersdorf, and he constructed three movable bridges for that service, which were kept concealed from the observation of the Austrians in one of the narrow channels formed by smaller islands in front of Lobau. Then, to deceive his adversary, he caused a second bridge to be constructed near the old one, and ordered a small island which was held by the Austrians, and which would apparently facilitate the crossing in that quarter, to be assailed and taken.

When all was ready, on the afternoon of the 3rd June demonstrations were made of passing the bridges, which drew the attention of the Austrians and the fire from

their batteries to that part, movable bridges were sent to Enzersdorf, and the passage on a tempestuous night, a large



crossed before morning and the village of Enzersdorf, where a body of the enemy's troops was day, and before the next morning with its artillery was formed on the Danube, their left resting on the taking the Austrian intrenchments, rendering them useless.

In all the examples which we have seen of the river was won either by a mixture of stratagem and force, or a lodgment was effected by the aid of the defenders from the position. In a river where a considerable river is crossed, a lodgment can be made and maintained. In such a position, an attempted passage must generally be made with the aid of such as boats, rafts, or flying bridges, the course to be concealed from the enemy of using them.

The great Napoleon laid down the passage of any river by



when the bank on your side of the river commands the other, and the river is of such a width only as to permit your guns to range far beyond the opposite shore, because in that case your guns can protect the lodgment of the troops who first cross. He said, moreover, that 500 yards was the extreme safe limit of breadth, because where the river exceeds that width, the enemy's troops could easily shelter themselves from the fire of your batteries, and remain within reach to oppose a landing; but '*nous avons changé tout cela,*' and so far as that consideration alone is involved, the river might be 2,000 yards wide, other things being favourable. Yet it will be prudent not to enlarge Napoleon's limit for more reasons than one. For first, a bridge would be difficult to maintain over a wider stream; secondly, the troops would present a mark while being ferried over for a dangerously long time to the enemy's artillery; thirdly, the troops who crossed first would be too far removed from support.

It is essential that the ground on the opposite bank of the river should in some way offer advantages for the assistance of the advanced guard while effecting its lodgment. These may consist in any accidentally strong ground, such as a circumstance as the existence of the semi-circular bend which protected the British lodgment at Oporto; or a sharp bend in the course of the river, salient towards your side, such that batteries planted along the sides of the bend might, by crossing their fire, protect a space on the opposite bank—the larger the better—for the formation of the troops which first cross.

As soon as the offensive army has acquired a firm lodgment on the farther bank, a bridge is commenced to provide the means of retreat, and this bridge must not only be protected during its formation, but during the whole time that the offensive army remains on that bank.

of the river. The bridge must be so constructed as to prevent the enemy from crossing it; and it must be protected from attack. To fulfil these requirements in the case of a bridge which bear the name of *tête de pont*.

A *tête de pont* may consist of a structure covering the head of a bridge, or it may assume the form of a fortification; or it may assume the form of a camp where it is designed to serve as a position of a bridge during a campaign. As is often spoken of, for every fortification over a considerable river serves as a *tête de pont*; and where the fortification is a bridge, the town then serves as a *tête de pont*.

The problem to be solved in the case of a *tête de pont*, intended to be permanent, is that the works shall cover a sufficient distance of the bridge to admit of the enemy being behind them in order of battle. The bridge must be defended by a comparatively small force, being defended by a comparatively small force. The bridge must be secured from attack by the enemy's artillery, either it must be defended by a work specially constructed, or it must be placed sufficiently far in advance to keep the enemy out of effective range of the bridge.

The range of guns, and the usual command of the neighbourhood of any river, and the only formation of ground which would be one where the enemy could intercept all view of the bridge.

The nature of the works to be constructed is a question for consideration; but

that a system of detached enclosed works, occupying most commanding points and affording a mutual defence is far to be preferred to a continuous line. For the de pont must be defensible by a small force, in order to set the main army at liberty to operate elsewhere; whereas a continuous line requires to be occupied at all points of nearly equal strength; and if one point be forced the whole line falls. As a battle position for an army detached works have a manifest advantage; they cover the flanks of troops drawn up between them, and yet do not, like continuous lines, impede those troops from taking the offensive at any favourable moment, the power to do which is the soul of a successful defence.

The establishment of *têtes de pont* may be considered generally as part of an offensive scheme, inasmuch as they are intended to enable the army possessing them to make an offensive movement; and if offence were not intended the bridge would be destroyed in place of being fortified. It has been already pointed out how great is the advantage to an army engaged in defending a long line of river to possess bridges which would enable them suddenly to turn the offensive.

It is only in the case where a river runs parallel to your line of operations, as the Danube for instance in Napoleon's two advances on Vienna in 1805 and 1809, that double *têtes de pont* become of great importance, enabling the army possessing them to change the side of operations at will, whether acting offensively in advance or defensively in retreat. In the former case, if the enemy being beaten on one side of the river should succeed in transporting his army to the other bank, you may follow him to that side by means of one of your bridges, and he cannot escape from your hold unless he too possesses double *têtes de pont*. In the latter case, if retreat



before a victorious enemy, between the two armies: passing the stream by imp passage; and should he su your opposition, you pass be

It must be evident that increases the difficulty of s the passage of a river in p transport of troops across th construction and maintenanc difficult than of old, in propo from which the point of pass enemy's batteries planted on up or down stream.

The important influence w success of military operation trated by a plan of campai drawn up in anticipation of l Sir William Napier at the Sikh war, of which the follow

1. To cover and protect our between Sirhind and Delhi, &c cavalry from ravaging it and r Gwalior, &c., it is imperative tion, unless we resolve to decl march on Lahore. But that c be an offensive position, if act and how to combine those r sight of military principles, is

We have on the Sutlej Ferozepore; but the latter is distant to be easily succoured, advantages of ground to the S it from Lahore with their w

and either attack and overwhelm it; or, continuing the straight course up the Sutlej to Loodiana, menace or attack that point, passing their irregular cavalry (20,000) over the Sutlej, and spreading it over the country between



river and Delhi. Or they might thus employ their cavalry alone, while their regular army simultaneously attack Loodiana and Ferozepore. The British army, if it attended to succour both these places, must divide, and the portion moving by long marches to Ferozepore must lend its right flank to the Sutlej which is fordable in many places proceeding contrary to all military rules; and neither the portion nor the one employed to succour Loodiana could prevent the cavalry from crossing on both flanks, without a dangerous dissemination of force; for the Sikhs, covered from observation by the Sutlej, would have the power of uniting their army in two marches at either point, to overwhelm one of our separated portions at the same time that their irregular cavalry turned our flanks and acted on our communications.

before a victorious enemy, between the two armies: in passing the stream by imprudent passage; and should he succeed your opposition, you pass back.

It must be evident that the increase of the difficulty of the passage of a river in the transport of troops across the construction and maintenance is difficult than of old, in proportion from which the point of passage enemy's batteries planted on up or down stream.

The important influence on the success of military operations is illustrated by a plan of campaign drawn up in anticipation of the Sikh war, of which the following is an extract.

1. To cover and protect our communications between Sirhind and Delhi, &c., and to prevent the cavalry from ravaging it and the Gwalior, &c., it is imperative to occupy a strong position, unless we resolve to decline to march on Lahore. But that position must be an offensive position, if action is to be expected, and how to combine those positions in the light of military principles, is the question.

We have on the Sutlej the position of Ferozepore; but the latter is too distant to be easily succoured, and the advantages of ground to the south of it from Lahore with their walled



and either attack and overwhelm it; or, continuing the straight course up the Sutlej to Loodiana, menace or attack that point, passing their irregular cavalry (20,000) on the Sutlej, and spreading it over the country between



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2. Ferozepore, though a day's march to Lahore, and to the centre of the sphere of operations, should be made sufficiently strong to resist a regular siege, the troops collected for bridging the river should be 270 yards wide. It should be under observation composed of a capable officer who should be present in any way circumstances short, should be considered a key point.

3. The base of the main body of arms, should be Sirhind. The enemy's cavalry, and the artillery which should be there for the main troops.

4. There should be a powder magazine; an intrenched camp would afford protection to the main body which should be collected for the key point also. A field pontoon bridge at Loodiana for ulterior operations. Cavalry should be disposed in front below.

To recapitulate.—The main body above arrangements would be the advanced guard with a field battery a bridge over the Sutlej would be ready to be placed across the river protected by an intrenched camp. Cavalry would line the banks of the river the town. At Ferozepore, the main body of arms, with boats for a bridge.

under the protection of the guns of the place, which have been made strong enough to resist any sudden attack.

5. In the above state of affairs, suppose the Sikh cavalry should attempt to cross the Sutlej above or below Loodiana; our forces would be on the watch to meet him. If they pass above, not only our cavalry on the river, but also our Sirhind force and the Loodiana force converging against them, would enclose them between the river and the mountains. If they should pass below, then our cavalry in that quarter would cooperate with the same forces from Loodiana and Sirhind, and with the Ferozepore force also, if that place was not threatened, to enclose them between the desert and the river.

6. Suppose (as was actually the case) that the whole Sikh army should keep together. Lahore ought to be swarming with our spies, and the moment the Sikh army should receive its pay and ammunition, and march towards the Sutlej, war should be taken for granted. The troops at Sirhind should then move up to Loodiana; our cavalry along the river should be called into the same place, and Ferozepore being left to its own resources, the bridge should be thrown across at Loodiana, the army should cross the river, and taking with it the pontoons, march down the right bank to the Byas river, bridge that stream, taking post there *à cheval*, and sending forward all the cavalry and light guns to ascertain the whereabouts of the Sikh army. If that army should already have passed the Sutlej, half a march would place all its communications, reserves, and stores, in our power, and we could, at our option, either follow it to the left bank or march on Lahore. Now, Lahore is the heart of the Sikh body, and the distance to it from our supposed bridge over the Byas is only two marches, whereas the Sikhs must make four or five marches to reach Sirhind.



stationary, separated from the latter perhaps by only a mile distance, yet the ridge which divides the valleys may be inaccessible to the foot of man, and the enemy's march is therefore unobserved. Similarly, in forest warfare two opposing forces may be separated by a very short distance without either becoming aware of the neighbourhood of the other. In both of these cases, the safety of the defensive force will consist in the possession of numerous lateral communications between the parallel forest roads or mountain valleys. In forests, as among mountains, what meets the eye gives no indication of what lies beyond the very limited horizon of the observer.

Of all frontiers which are formed of great natural obstacles, a mountain frontier is probably the most difficult of defence, unless it be defended by the mountaineers themselves, who are thoroughly acquainted with every path and track. Where these are neutral, the very best mountain positions may in general be turned by paths unknown to the defenders. But every mountain range is traversed besides by known passes, more or less numerous, all of which must be watched by the defenders. On the other hand the assailants, by feints against several of these passes, distract the attention of the defenders, and finally, by the exercise of a little finesse, lead the latter to concentrate at the wrong place, while the attacking force is then thrown *en masse* on some point which has been left weakly guarded.

The successful defence of any long line is impossible without the power of rapid concentration; but this is forbidden to an army which is distributed over a long range of mountains, by the physical features of such a country. For the passes, which must all be watched or guarded, are approached by long valleys, which are formed and separated from each other by secondary ranges, offshoots from

the primary range. These secondary ranges again are traversed by secondary passes, which afford the only means of communication between two adjacent valleys; and these secondary passes are often, indeed generally, at a considerable distance from the primary range. Hence it follows that of two corps or detachments of the same defensive force, which are posted on the summit of the primary range to guard the adjacent passes, distant from each other as the crow flies perhaps only a few miles; one may be obliged, in order to reinforce the other, to descend the valley belonging to its own particular pass for many miles, then to cross the intervening secondary ridge, and to march up the adjacent valley an equal distance before it can reach that other pass which it is called upon to reinforce. But *time* is the most important element in military operations, and this circuitous march will have consumed a period of time by which the enemy may have profited to overwhelm the defenders of that other pass.

But if an assailant should succeed in breaking through in force at any one point along a mountain range, it is clear that the forward position of a defensive force, scattered in parcels over the summits of the primary range, and deprived, as has been explained, of the power of speedy concentration, would expose the latter to great danger. We must therefore conclude that, in such a case, a defensive army should not be disseminated over the range which it is the object to guard. The most prudent method would be to place only detachments in the passes, more for observation than for serious defence, as outposts and nothing more, and to keep the main body in rear, in masses, at one or two central points, the knots or junctions of several valleys, ready to fall on the heads of the enemy's columns as they issue from the gorges of the hills.

The positions occupied by the French army in 1796, on the summits of the Alps, at the time when Napoleon was appointed to the command of the army of Italy, afford an instance of faulty arrangement which illustrates the foregoing remarks.\*

Sardinia was allied with Austria against France. The line of demarcation which separated the French forces on the one hand from the Austrians and Sardinians on the other, was divided into two parts—viz.: one formed by the western chain of the Alps from the Little St. Bernard on the north to the Col di Argentiera on the south; the other by the southern chain, or Maritime Alps, extending from the Col di Argentiera on the west to Montenotte on the east. The French were in possession of the crests, and the different passes were guarded by two independent armies; Kellerman's army of 20,000 men being distributed over the line of the Western Alps, while the passes of the southern chain were occupied by the army of Italy.

The principal passes of the western chain were—

1. The Little St. Bernard, from which one valley only conducts to Turin; the Dorea Baltea, blocked by the little fort of Bard, which so nearly frustrated Napoleon's campaign of Marengo.

2. Mont Cenis, giving access to Turin by the valley of Susa, and defended by the fortress of that name.

3. Mont Genevre, from which admission is obtained into two valleys leading on Turin; the northernmost being that of Susa, blocked before reaching that place by the fort of Exilles; the other that of Pragelato, guarded by Fenestrelle and further down by Pinerolo.

4. La Croix, from which two valleys conduct to Turin;

\* See map in Murray's Handbook of Northern Italy.



but both of these merge into the valley of Pinerolo, and are guarded by that fortress.

5. *Argentiera*, giving access to Turin by three different valleys,—the *Varaita*, the *Maira*, and the *Stura*, guarded respectively by the forts of *Castel Delfin*, *Genola*, and *Demonte*.

The passes of the southern chain were—

1. *Tenda*, from which one valley leads to Turin, guarded by the fortress of *Cuneo* (by the French named *Coni*).

2. *Ponte di Nava*, from which one valley—that of the *Tanaro*—leads to Turin, defended by the fort of *Ormea* and citadel of *Ceva*.

3. *Cadibona*, from which there is no direct access to Turin; from this pass the valley of the *Bormida* leads, by *Cairo* and the fortified town of *Acqui*, to the great fortress of *Alessandria*.

4. The *Bochetta*, leading from *Genoa* over the *Apennines*, and by the fortified town of *Novi* to the fortress of *Tortona* on the one hand, and to *Alessandria* on the other. This last pass was not in the possession of the French, for their right terminated at *Cadibona*; but it is necessary to take it into account, since it entered into the sphere of *Napoleon's* operations, and was at the time when he took the command in the possession of his enemies and employed by them against him.

It is easy to perceive the disadvantage to the French of occupying so extended a line, at many points pushed so far in advance of the true centres for concentration. They suffered, moreover, great hardships from the difficulty of supplying the troops over the bad mountain roads, as well as from sickness, resulting from insufficient food and clothing, combined with exposure to so severe a climate.

On the other hand, while the French required twenty days to concentrate on their centre, their enemies, col-

lected in mass at Turin (which was the knot of all the valleys but the two last named, leading from the French positions), with small detachments pushed forward in observation whose safety was secured by the different forts, would be perfectly posted for applying the precept set forth above, by falling in mass on the head of any French column as it debouched from the gorges of the hills. This was the state of affairs when Napoleon assumed command of the army of Italy which occupied the southern chain; its left being at the Col di Tenda, its right at the pass of Cadibona.

The combined Austrian and Sardinian force immediately opposed to Napoleon had its right at Ceva, its centre behind Montenotte, its left between the Bochetta pass and Gavi.

Napoleon lost no time in extricating his army from its false position. He took the offensive. He determined to throw his whole force on the Austrian centre by Cadibona and Montenotte, cut the line of his enemies in two, and deal with the wings in detail. But he made demonstrations of intending to pass through Genoa to operate against their left by the Bochetta pass. He demanded from the Senate of Genoa (then an independent republic) that the Genoese fortress of Gavi, on the road from the Bochetta to Alessandria, should be given up to him, and pushed one of his brigades to Voltri, a few miles from Genoa. At the same time, foreseeing that the Austrians, as soon as they thought him committed to an advance through Genoa, might be tempted to operate by Montenotte on Savona and so cut his communications which led along the sea-coast to Nice, he constructed three redoubts on Monte Legino, completely barring the mountain track which alone led from Montenotte to Savona. The Austrian General Beaulieu was completely deceived; he concluded



the whole French army was advancing by Genoa. He ordered his centre to march by Montenotte on Savona, while he led his left through the Bochetta pass down to Genoa. The attempt made by the Austrian centre was nipped in the bud at the Monte Legino redoubts, which detained the Austrians before them long enough to enable Napoleon to surround them with a superior force, and almost to annihilate this portion of their army. Meanwhile, Beaulieu, arriving at Genoa by detachments, found himself opposed a few miles beyond the city by the French brigade, supposed by him to be merely the advanced guard of the whole French army. This French brigade fell back before him from one strong position to another until he learnt the disaster to his centre, and that his communications were at the mercy of the French. All that remained was now to withdraw from his false position and endeavour to effect a junction with his broken centre; he hoped to be able to do this and to make a stand at Dego, but he was too late; he was separated from the Sardinians who composed his right wing, and he was obliged finally to withdraw to Acqui to reorganise his army.

Beaulieu's false proceedings illustrate the foregoing general remarks. In committing his left and centre simultaneously to positions so far advanced beyond their true points of concentration, as were Genoa and Montenotte, he not only destroyed all power of concentration but even of communication. Time and correct information are certainly the most essential elements of military success, and these he arrayed both against him. The two portions of the Austrian army, although really so near to each other as Genoa and Montenotte, were practically debarred from all direct communication by the French troops interposed between them; and in consequence of the absence of communication they were unable to act in concert.



When Beaulieu's scheme failed, his left was obliged to retrace its steps by the circuitous route of Bochetta, and his centre was overwhelmed without his being able to hold out to it the smallest assistance. Had it been possible for Beaulieu to receive information of the real state of affairs—that is to say, had he known that his centre was in danger of being surrounded or destroyed, and that only one division, instead of the whole French army as he supposed, was between him and Savona, he would have forced his way at all hazards, and he might then either have advanced on Monte Legino to extricate his centre, or, if too late, he might have seized Savona and cut Napoleon's communication with France, which would have obliged the other, opposed as he still was by the Sardinian army, to re-establish them with as little delay as possible by Ponte di Nava. But in war the absence of correct information cannot be compensated by any superiority of force.

In mountain warfare, that army which receives battle has always the advantage, arising from the natural strength of any position in such localities. From this it would appear that the defensive is preferable to the offensive; but this is not so. The secret of mountain warfare consists in turning the strength of the country to the profit of the assailants. The defensive force must stand to fight in certain positions, and these, from the nature of the country, very strong in themselves; but local strength is nothing if the flanks can be turned; and there are very few, probably not any, positions among mountains that cannot be turned by some means within the legitimate sphere of offensive action. If, then, the assailants turning any strong defensive position, menace a pass in its rear which is necessary for the safe retreat of the defensive force, the latter must abandon its strong position, and may, if it move tardily,

be reduced to the necessity of itself becoming the assailant to open for itself a retreat.

It was in this manner that Wellington operated against Massena in 1811 during the retreat of the latter from Portugal. For, noting the skill and tenacity with which the French general clung to every league of ground, Wellington constantly menaced the passes in his rear by flank movements, and thus compelled him to abandon positions which could scarcely have been forced.

But Wellington's operations in the Pyrenees against Soult will convey the best of all lessons in mountain warfare, and will be of all others the most interesting to an English reader. (See Plan 9.)

After the battle of Vittoria, and as a consequence of that victory, the tide of French invasion was, for the first time since the commencement of the Peninsular struggle, rolled back to the French frontier, though Suchet's corps still held its ground in Catalonia, and French garrisons occupied San Sebastian and Pampeluna. Wellington's design was to invade France, yet not hastily, but in a solid permanent manner; and this could not be prudently undertaken without the previous capture of San Sebastian and Pampeluna. The former was therefore besieged, while the latter was blockaded; and it was to cover these two operations that the English army, numbering 82,000 combatants, was distributed in positions extending from the mouth of the Bidassoa on the left to the crest of the principal chain of the Pyrenees, about Roncesvalles, on the right.

Soult's field force, consisting of 77,500 men, of whom 7,000 were cavalry, was disposed in nine divisions of infantry, a reserve, and two divisions of cavalry; the whole divided into three corps and reserve, and was thus distributed;—

The left under Clausel was at St. Jean Pied de Port; the centre under d'Erlon was on the heights above Ainhua, with an advanced guard pushed close to Urdax; the right under Reille was on the mountains overlooking Vera from the side of France; the reserve, under Villatte, guarded the banks of the Bidassoa from the mouth upwards to Irun, the stone bridge of which place was destroyed. The cavalry was in rear on the banks of the Nive and Adour rivers. The French division of General Paris was at Jaca, where it formed a sort of link between Soult and Suchet.

The theatre of operations was an irregular quadrilateral, with sides from sixty to forty miles in length. The fortresses of Bayonne, St. Jean Pied de Port, Pampeluna, and San Sebastian marked the angles, and these were all in possession of the French.

The interior, formed of mountains, and broken up with craggy passes, deep watercourses, precipices, and forests, would at first sight appear a wilderness in which regular military operations were impracticable, and where only a guerilla warfare was possible. But the great spinal ridge of the Pyrenees furnished a clue to the labyrinth of hills and valleys. Running diagonally across the quadrilateral, it separated Pampeluna from the other three fortresses above named; and thus that part of the Allied force which maintained and covered the blockade of Pampeluna was cut off from that which bore the same relation to the siege of San Sebastian. The only direct communication between these places was by the great road running behind the mountains through the pass of Lecumberri. The allied centre was, indeed, a connecting link between the two wings; but, as it covered by its position the most direct gun-road to Pampeluna through the pass of Bellate (*g*), it could not move at all until the enemy's attack was decidedly deve-



loped against one or other of the extremities, for fear of unwarily opening that road to the French.

The English general's position, extending over fifty miles of mountain country, was necessarily a passively defensive one, to protect his sieges from being interfered with; while his adversary, taking the initiative, could by beaten roads concentrate against any part of this enormously extended line; and it is hoped that the foregoing general remarks will fully elucidate the great disadvantage suffered by the English general, and the immense labour, both mental and bodily, requisite to counteract it. With an astonishing amount of exertion Wellington completed in three days a personal examination of the whole mass of the Western Pyrenees. The operation of supplying his troops, perched on the summits of the mountains, from the magazines of Santander and Bilboa on the sea coast, demanded astounding labour; and the combinations requisite to secure the long line of defence from being broken at any one point by an enterprising enemy, who had the choice of a number of passes by which he could turn the strong posts guarded by the different Allied divisions, called for an amount of intellectual labour, and imposed a weight of anxiety, such as few minds could sustain.

Wellington's dispositions, based on the information he derived from his reconnoissance, were as follows:—

On the extreme right, covering the pass of Ibaneta (*b*), and Roncesvalles in its rear, was Byng's British brigade (detached from the 2nd division), supported by Morillo's Spaniards.

On the left of Byng, in the Alduides valley, was Campbell's Portuguese brigade.

These two posts were both supported by the 4th division under General Cole, which was at Viscayret in the valley of Urroz.

On the left of Campbell, in the valley of Bastan, both commanded by General Hill, were the 2nd division and Hamilton's Portuguese division, of which, respectively, Byng's and Campbell's brigades were at Roncesvalles and Alduides.

The 3rd division under Picton, at Olague in the valley of Lanz, formed a sort of general reserve to Hill on the one hand, and on the other to Cole and his advanced posts at Roncesvalles and Alduides.

On the left of Hill came the 7th; next, the light division, occupying a chain of mountains which run in front of Echallar to Vera, and covering those two important passes. The left of the light division rested on the north or right bank of the Bidassoa.

In rear of the 7th and light divisions, and forming a reserve to them, was the 6th division at San Estevan on the Bidassoa, where there was a stone bridge, high and narrow—important to note as being one of the pivots round which turned the movements of that portion of the allied force in its neighbourhood.

On the left of the light division, and on the south bank of the Bidassoa, were the Spanish divisions of Generals Longa and Giron, extended along the mountains which bordered the river to the sea.

Behind Giron was the besieging army of San Sebastian, under Sir Thomas Graham.

Six field batteries, and a few regiments of light cavalry, were with the right and centre; but the bulk of the cavalry and all the heavy guns were behind the mountains, half a march south of Pampeluna.

But to appreciate these dispositions and the subsequent movements on both sides, a correct knowledge of the peculiar features of the country is indispensable, and this it will be endeavoured to supply in the following description:—

The principal spinal range of the Pyrenees shoots out huge secondary ridges on either hand. The communication across the principal range between France and Spain is by primary passes,\* which are reached through the valleys lying between the secondary ridges. The communication between any two of these valleys adjacent to one another, on both sides of the great chain, is by secondary passes.

The main chain, which runs in a straight course between Lecumberri and Roncesvalles, turns from the latter place suddenly towards the north, approaching to within a short distance of St. Jean Pied de Port, when it takes another turn eastward. This configuration was an advantage to the French, since it would enable them by the primary pass of Yropil (*a*) to turn the extreme right of the Allies: yet only with detachments, as the country was too broken for an army.

Taking the parallel valleys in their order on the French side of the chain, and commencing from the Allied right; the first is—

1. Val Carlos. Up this valley a road leads direct from St. Jean Pied de Port to the primary passes of Ibaneta (*b*) and Mendichuri (*c*). At Ibaneta (*b*) this road is joined by the principal road of communication between St. Jean Pied de Port and Pampeluna, which leads direct from the former place up a buttress of the principal range, then ascends that range and continues its course along the summit to Ibaneta (*b*). At Ibaneta this principal road strikes down the mountain by the valley of Roncesvalles towards Pampeluna, but a pathway continues along the summit from Ibaneta to the Mendichuri pass (*c*), through which a second path branches off to the left down the mountain, and joins

\* These are marked in the plan, *a, b, c, d, e, f, g, h*, going from right to left, along the summit of the principal range.



the main road at Espinal. From Mendichuri (*c*) however the first path continues its course along the summit a short distance, and then passes by the defile of Atalosti (*p*) into the valley of the Alduides. Atalosti (*p*) may thus be considered as a secondary pass, affording the means of communication between the two adjacent valleys of Val Carlos and Alduides, and by it Campbell in the latter valley could join Byng and Morillo at Ibaneta (*b*).

2. Val de Aira and the Alduides, both merging into the Val de Baigorri. These valleys are separated from Val Carlos by the ridge of Airola. From St. Etienne, in the valley of Baigorri, a road leads up the Alduides valley to the village of Alduides; thence a path turns to the east leading through the pass of Atalosti (*p*), but throwing off two branches which, traversing the principal ridge by the primary passes of Sahorgain (*d*) and Urtiaga (*e*), descend the southern slope—the first falling into the main road at Viscayret, where the 4th division was posted; the other going to Egui, in the Val di Zubiri. This last is joined at Egui by yet another path which, coming direct from the village of Alduides up the valley of that name, crosses the principal range by the primary pass of Renecabal (*f*).

3. The Bastan. This is a large district comprising several valleys which belong to a different system from those above described, inasmuch as the waters of those valleys run off perpendicularly from the principal range into the Nive; while those of the Bastan run off westward by the Bidassoa river—the great drain of this district, which may be considered as entirely enclosed by mountains, and finding egress only by the various passes which pierce them. The lofty mountain La Houssa separates the Bastan from the Baigorri and Alduides valleys, into which admission is obtained through the secondary passes of Berderes (*o*), Lorienta (*n*), and Yspegui (*m*).

The northern barrier which separates the Bastan from the valley of the Nive, is traversed by the secondary passes of Arietta (*k*), and Maya, which last includes two passes (*x* and *y*).

The western barrier is pierced by the secondary passes of Echallar and Vera ; the latter being a narrow gorge cleft through the mountains by the Bidassoa.

The principal range of the Pyrenees formed the southern boundary of this district, and was traversed by the primary passes of Bellate (*g*) leading into the valley of Lanz ; and Donna Maria (*h*) leading to Lizasso—a strategical point of importance, since from it three roads diverged to Lanz, Ostiz, and Oricain, all in the valley of Lanz ; and two other roads went off to Irurzun on the great route from Pampeluna to San Sebastian, and to Letassa on the same great route, but further to the west.

Elizondo may be considered the decisive strategical point in this district, because it formed the knot of all the roads coming from the passes on the circumference. Hill, who occupied the Bastan with his two divisions, had his head-quarters at Elizondo, and guarded by detachments the passes of Lorient (*n*), Yspegui (*m*), Arietta (*k*), and Maya (*x*, *y*). By the pass of Berderes (*o*) Hill was in direct communication with Campbell in the Alduides.

Turning now to the Spanish side of the mountains, we find, commencing from the Allied right :

1. The valley of Orbaceita, into which the primary pass of Yropil (*a*) gives admission from St. Jean Pied de Port.

2. The valley of Roncesvalles, down which leads the main road from the pass of Ibaneta (*b*). This road is joined at Espinal by two tracks—one coming from the pass of Yropil (*a*) through the valley of Orbaceita ; the other coming down from the primary pass of Mendichuri (*c*).



At Espinal, the main road turns sharp to the west, crosses the dividing ridge, and enters

3. The valley of Urroz, in which, at Viscayret, it is joined by the track from the pass of Sahorgain (*d*). At Viscayret, where was the 4th division, the same road again turns southward to Linzoain, where it is joined by the two tracks coming from the passes of Urtiaga (*e*) and Renecabal (*f*), which, however, had merged into one at Egui. From Linzoain the road then crosses the dividing ridge into

4. The valley of Zubiri, which it descends by Zabaldica to Huarte, where it turns sharp to the west and enters

5. The valley of Lanz, the waters of which join those of the Zubiri valley two miles above Pampeluna. Down the valley of Lanz leads the direct gun-road from Elizondo in the Bastan, coming by the pass of Bellate (*g*). This is joined at the village of Lanz, at Ostiz, and at Oricain, by the three roads above described as branching out from Lizasso. At Lanz also it receives a track which leads over the intervening ridge from Egui, in the Val di Zubiri; at Olague and Ostiz it receives two tracks which come from the village of Zubiri in the adjacent valley of that name. The road, continuing its course down the valley below Oricain, is joined at Villalba by the road coming from Huarte, at the distance of only three miles from Pampeluna.

As San Sebastian was far nearer and more exposed to the enemy than Pampeluna, and as the battering train and siege stores were there, Wellington so distributed his army that he could concentrate on his left more quickly than on his right; that is to say, the mass of the army was within nearer reach of San Sebastian than of Pampeluna.

The left wing, including the army of siege, was 21,000 strong, with singularly strong positions of defence,



centre under Hill, about 24,000 strong, from the Bastan could in two marches unite with the left wing to cover the siege, or to fall on the flank of an enemy who should advance on San Sebastian by the coast road; but Hill's corps would require more than three days to concentrate on the right for the protection of the blockade of Pampeluna.

Soult's plan was to operate by his own left to relieve Pampeluna; he designed to mass his forces about St. Jean Pied de Port and attack the Allied right, the weakest part of their line. He judged that, by means of the comparatively good roads at his command, he could gather on Wellington's right quicker than that general could gather to oppose him, and force a way to Pampeluna. For this purpose Reille's corps was to be transferred from the right to the extreme left; but the movement would be masked from observation by the Nivelle and Nive rivers, and by d'Erlon's corps, which was to remain in its original position about Ainhoa and Urdax until the concentration on the left should be completed.

To lead Wellington to believe he was about to advance on San Sebastian, Soult ordered the construction of two pontoon bridges on the Bidassoa, a short distance above Irun. He now sent orders to General Paris to be in readiness to march from Jaca, so that he might join the left of the French army when it was reaching Pampeluna.

Clausel was directed to push the heads of his columns towards the two passes leading to Roncesvalles, defended by Byng's and Morillo's brigades; also to send a force into the Baigorri valley, part of which should threaten Campbell's Portuguese brigade in the Alduides; part by approaching the pass of Yspegui (*m*) to menace the right flank of Hill in the Bastan, who had his head-quarters at

Elizondo, and guarded the passes *m* and *n* communicating with the Baigorri valley, and *k*, *x*, *y*, in his front.

Villatte's reserve of about 15,000 men was left on the Bidassoa to guard the line to Bayonne, towards which place it was to retire slowly if threatened by superior forces, yet halting successively in the positions of St. Jean de Luz and Bidart, to gain time. Villatte received particular instructions to show only French troops at the advanced posts, for a considerable force of mountaineer national guards, and several foreign battalions, had joined the French army. The object was to lead the Allies to suppose that in this quarter the French had none but their best troops, and that they intended an offensive movement in this direction; and to prevent the reality from being discovered, Villatte was to attack with the utmost vigour any small force of the enemy that might cross the stream and drive it headlong back again; but if in consequence of the operations against their right, the Allies should retire, Villatte was to relieve San Sebastian and follow them briskly by Tolosa.

All being ready, and July 22 being fixed for the union at St. Jean Pied de Port of Reille's corps, the light and heavy cavalry, and the park of artillery, with Clausel's corps, which was there already;—on the 20th, Reille's troops on the heights bordering the Bidassoa above Vera, being cautiously relieved by Villatte, marched by Cambo behind the Nive towards St. Jean Pied de Port; but heavy rains had so swollen the streams and cut up the roads that Reille, finding it impossible to make way by that route, had to go round by Bayonne and follow the great high road. The cavalry was similarly retarded and two days were lost, but on the 24th the movement was completed, and two French corps, with the cavalry at St. Jean Pied de Port; one French corps (d'Erlon's) at Ainhoa and Urdax; together number-



ing 60,000 combatants (including National Guards) with 66 pieces of artillery, were all prepared to act simultaneously in forcing the passes of Roncesvalles on the Allied extreme right, and the secondary pass of Maya in front of their centre. The main road leading from St. Jean to Roncesvalles was repaired, 300 bullocks provided to drag the guns up the mountain, and in the night of the 24th Clausel sent a detachment to the pass of Yropil (*a*) with a view to turn the right of the Allies by descending into the valley of Orbaceita.

Clausel's three divisions, with all the artillery and cavalry, were formed in two columns in front of St. Jean Pied de Port. The head of the left-hand column was at Orrison on the main road, and within two miles of the rocks of Chateau Piñon, whence one narrow way descended on the French right hand to the village of San Carlos, another on the left to the forge of Orbaceita in the valley of that name. The head of the right-hand column was in the Val Carlos.

Reille's corps was concentrated on the ridge which, from a French point of view, formed the right-hand boundary of Val Carlos, with orders to march at daylight by the crest of the ridge to Lindouz, a culminating point on the great chain, after which he was to push detachments through the passes of Ibaneta (*b*) and Mendichuri (*c*) to the villages of Roncesvalles and Espinal, by accomplishing which the retreat of Byng and Morillo would be intercepted. At Lindouz he would be master also of the secondary pass of Atalosti (*p*), by which only Campbell in the Alduides could communicate with Byng and Morillo; and he was, moreover, to seize the passes of Sahorgain (*d*) and Urtiaga (*e*), thus cutting off Campbell's retreat also towards Pampeluna.

Before describing the movements which now took place,



When Beaulieu's scheme trace its steps by the circuit centre was overwhelmed with to it the smallest assistance Beaulieu to receive information—that is to say, had he danger of being surrounded one division, instead of supposed, was between him forced his way at all hazards have advanced on Montebello or, if too late, he might Napoleon's communication obliged the other, opposed army, to re-establish them by Ponte di Nava. But information cannot be compelled.

In mountain warfare, the offensive has always the advantage, and the possession of any position in such localities may appear that the defensive is the best, but this is not so. The secret of success is in turning the strength of the position against the assailants. The defensive force must occupy certain positions, and these, if properly chosen, are very strong in themselves; but the flanks can be turned; and, in the end, not any, positions among mountains can be held by some means within the limits of the action. If, then, the assailant can find a defensive position, menace a pass, or a valley for the safe retreat of the defender, he can abandon its strong position.

described as running between Olague in the valley of Lanz and Zubiri in the adjacent valley.

Continuing the front line of the Allies from the Col de Maya, the trace ran along the mountains forming the western boundary of the Bastan district; the entries into which were by the pass of Echallar, guarded by the 7th division (4,700 strong); and the pass of Vera, guarded by the light division (4,000). These two divisions being opposed only in observation by the part of Villatte's reserve which had replaced Reille, and their ground being moreover very strong, were available for the succour of either wing; and behind them at San Estevan on the Bidassoa was the 6th division (6,000), under General Pack. Here, being at equal distances from Vera and Maya, and having a direct road to Pampeluna over the pass of Donna Maria (*h*), this division formed a sort of general reserve to the whole, and could not have been better placed to fulfil that object.

The left bank of the Bidassoa from Vera to the sea was held by the Spanish divisions of Longa and Giron, which, with Graham's siege force in rear, amounted to 21,000 men.

The blockade of Pampeluna was maintained by 11,000 Spaniards, of whom 7,000 could be brought into action without abandoning the works of the blockade.

Head-quarters were at Lesaca, and the line of correspondence with the left wing was over the Pena di Haya mountains; that with the right wing by San Estevan, Elizondo, and the Alduides.

On the morning of the 25th, the French troops were only five miles distant from the Allied positions in front of Roncesvalles, and it is evident that Soult's success would depend on the rapidity with which he could overcome resistance in that quarter.

Now, Clausel's three divisions furnished 16,000 bayonets, besides National Guards, and besides the cavalry and artillery. Byng and Morillo were therefore left with 5,000 men to withstand this superior force until Cole could reinforce them from Viscayret; but Cole, being twelve miles from Byng and ten from Morillo, could not possibly come up in fighting order in less than five hours. And as before the lapse of that time Reille's division, of equal strength with Clausel's, could reach Lindouz and turn the left, it was clear that the Allied troops, though increased to 11,000 by the junction of the 4th division, would be so seriously outnumbered that they would be compelled to fall back to some new position, where they could be joined by the 3rd division from the valley of Lanz, and by Campbell's brigade from the Alduides. This junction, owing to the distance of Picton, could only take place in the valley of Zubiri and not very far from Pampeluna; and when it should be effected the Allies, thereby raised to not quite 18,000 bayonets with some guns, would still be exposed to the shock of 32,000 with a powerful artillery.

Turning now to General Hill, we perceive that the passes of Maya which he defended were half a day's march further from Pampeluna than the passes of Roncesvalles; and he was placed in this dilemma: that he could not abandon Maya as long as Byng and Cole held their ground at Roncesvalles; yet, if they fell back and he delayed too long, his own situation would be very dangerous. If he retreated rapidly, d'Erlon whose force was very superior could follow as rapidly; and while Picton and Cole were reinforced by his 10,000 men, Clausel and Reille by d'Erlon's arrival would gain 18,000.

If Hill only fell back to his next strong position at Irrueta, then d'Erlon, moving through the Maya passes



and turning to his left at Elizondo, might by the Alduides join Soult in the valley of Zubiri before Hill could join Cole and Picton by the valley of Lanz. On the other hand, if Hill did not maintain the position of Irrueta, then d'Erlon, following him through the pass of Bellate, could interpose between the 7th and light divisions and the place where the decisive battle must be fought, and yet would himself be able to join in that battle. There was in short a danger that Hill, being in a manner fettered by the hostile action of d'Erlon's corps, might, as well as the 7th and light divisions, be thrown on external lines of march to reach the decisive point, while the French would be able to concentrate at that point by moving on internal lines. And so it actually occurred.

But the 6th division at San Estevan, having no enemy in front, was free to move at any moment, and was indeed, considering the drag put upon Hill's movements by d'Erlon's corps, a day nearer to Pampeluna than Hill. Wherefore, on the rapid handling of the 6th division Wellington's success materially depended. If it arrived in time, nearly 30,000 infantry, including 7,000 Spaniards called off from the blockade in rear, with sufficient cavalry and artillery, would be established in some strong position to check the enemy until the remaining divisions could arrive. Hill and the 7th division would be each one day, the light division two days, behind the 6th division.

On the morning of the 25th Clausel and Reille, under the immediate direction of Soult, led their troops to the attack of Byng and Morillo. Favoured by a thick fog the Allies held their ground until the arrival of Cole's division from Viscayret in the afternoon, and when night fell Cole still held the great chain of the mountains with a comparatively trifling loss. But the odds being too great and his right being turned by the valley of Orbaceita, he re-

treated through the passes during the night and gained the valley of Urroz. Campbell retired from the Alduides by the pass of Urtiaga (*e*) to Egui in the valley of Zubiri.

But the previous day's operations were unsatisfactory to the French general, for the passes now abandoned were twenty-two miles from Pampeluna, and there were strong defensive positions in the way where increasing numbers of enemies were to be expected.

On the 26th Soult sent Clausel to follow Cole; Reille was ordered to follow the crest of the mountains to seize the passes in Hill's rear leading from the Bastan, while d'Erlon pressed that general in front, who would thus either be crushed or thrown to the side of San Estevan. D'Erlon would then advance by Elizondo; and while two of his divisions moving by the Alduides followed Reille's corps to the valley of Zubiri, the remaining division, passing by Bellate (*g*), should descend the valley of Lanz to prevent Picton from quitting it to aid Cole.

These skilful dispositions were frustrated by the thick fog, for on the morning of the 26th, Reille's guides refusing to lead the troops along the crests in such thick weather, he had no other resource than to march down upon Espinal through the pass of Mendichuri (*c*) and so fell into the rear of Clausel's column of march.

At Viscayret the head of the French column overtook Cole's rear guard, and the latter retired fighting to Linzoain, a mile in rear. It was now 3 o'clock, and here Picton met him with intelligence that the 3rd division, having crossed the hills from Olague, was at Zubiri; and that Campbell's brigade from the Alduides had reached Egui in the same valley. Cole, being outflanked at Linzoain, now fell back to the ridge separating the valley of Urroz from that of Zubiri, and there offered battle. While the French general was preparing to attack, Campbell, coming from



Egüi appeared mounting the ridge at some distance on Cole's left. Soult, doubtful what the new-comers might be, postponed his attack till next day, and after dark the 3rd division entered the line from Zubiri.

We turn now to d'Erlon's operations against Hill.

At midday on the 25th, d'Erlon had attacked the passes of Maya with an overwhelming force, but at nightfall, after a desperate struggle, and thanks to the opportune arrival of a brigade of the 7th division from Echallar, the British troops still held their ground. But intelligence arriving that the Roncesvalles passes had been abandoned, Hill withdrew his troops during the night to the position of Irueta, five miles in rear, leaving one Portuguese brigade in front of Elizondo to cover the road to San Estevan on his left, and that to the Alduides on his right by the pass of Berderez (*o*).

Up to this time Wellington, ignorant of the extent of the French operations against his right, believed they were only a feint, and that the real attack was to be directed against his left to relieve San Sebastian, a mistake in which he was confirmed by the construction of the French bridges above Irun on the Bidassoa. But in the night of the 25th, correct intelligence reaching him at Lesaca of the fights at Roncesvalles and Maya, he ordered Graham to turn the siege into a blockade, to embark his guns and stores, and to hold all his spare troops ready to join Giron and Longa behind the Bidassoa.

While the embarkation of the guns and stores was going on, it was necessary to hold the passes of Vera and Echallar, otherwise d'Erlon, whose ulterior object was not yet developed, might march on San Sebastian over the Pena de Haya. When, therefore, Wellington passed through San Estevan on the morning of the 26th, he merely directed General Pack who commanded the 6th division to guard



the bridges over the Bidassoa between that place and Lesaca; but when he reached Hill at Irrueta, and learnt more of the movements which had taken place on his right, he directed all the troops within his power upon Pampeluna, and indicated the valley of Lanz as the general line of movement; and he sent to inform Picton of the orders he had given for his reinforcement.

In pursuance of these orders, the following movements took place.

The 7th division quitted Echallar on the night of the 26th; the 6th division quitted San Estevan the morning of the 27th, before the 7th division could reach that place; both were to march by the pass of Donna Maria (*h*), and Lizasso to the valley of Lanz. The 6th division arrived at Olague in the valley of Lanz about one o'clock on the same day (27th), and was preparing to continue its march down the valley when it was stopped and turned back to Lizasso by an order from Wellington, in consequence of events which will be presently related.

The troops under Hill quitted Irrueta on the evening of the 27th, and, marching by Bellate pass (*g*), reached the village of Lanz the morning of the 28th. For the same reasons that had influenced the 6th division, Hill likewise turned off to Lizasso, which place he reached at noon, and there met the 7th division which had arrived from Echallar.

The light division quitted Vera also on the 27th, and retired by Lesaca to the summit of the Santa Cruz mountain. There it halted to give time to General Longa to block the roads leading to San Sebastian over the Pena de Haya, which were uncovered by the evacuation of Vera and Echallar. That object effected, it was to descend through the pass of Lecumberri, to secure the communication between San Sebastian and Pampeluna.

Meanwhile d'Erlon, who had been opposed to Hill, only

advanced to Elizondo on the 27th and there halted, in the belief that the 6th division was still at San Estevan on his flank; but on the morning of the 28th, after Hill's retreat had opened the way, he followed through the pass of Bellate (*g*).

On the morning of the 28th, then, the state of affairs on this side was as follows.

The 6th division (6,000) was in march from Lizasso by Marcalain to Oricain in the valley of Lanz.

The 7th division and Hill's force (together about 14,000) were at Lizasso. The French general d'Erlon was marching upon the village of Lanz.

The light division was on the summit of the Santa Cruz mountain.

We now turn to Cole and Picton in the valley of Zubiri, where we left them on the night of the 26th, near Linzoain, in battle array on the ridge which separates the valleys of Urroz and Zubiri.

The position having been occupied to gain time only, and the Allies not being strong enough to maintain it, Picton, who commanded the whole, resumed the retreat down the Zubiri valley before dawn on the 27th. Soult followed some hours after. The retreat was continued to Huarte, where Picton turned and formed his force for battle in two lines, on two parallel ridges, the first line under Cole resting its right at Zabaldica, the right of the second line being at Huarte. The front, only two miles long, extended from the Guy river on the right to the Lanz on the left, and the village of Sauroren was immediately in front of the left flank, down in the valley.

Soult made immediate dispositions for an attack, in the execution of which his troops spread themselves opposite to Cole's position and occupied the villages of Zabaldica and Sauroren on the two flanks.



All this time Wellington was endeavouring to make his way to Picton, of whose position he was of course ignorant. Quitting Hill at Irrueta very early on the 27th (that is about the time Picton was retreating from Linzoain), he crossed the main ridge and descended the valley of Lanz as far as Ostiz before he could learn anything of his troops. At that place, however, he found a brigade of light cavalry which had been employed to keep up communication in the mountains, under General Long, who told him that Picton was retreating on Huarte; and as this movement left open to the French two roads by which they might from Zubiri, if they chose, enter the valley of Lanz at Olague and Ostiz, he deemed the movement of the 6th and 7th divisions and of Hill's corps marching piecemeal would be unsafe by that route; he accordingly left his quartermaster-general to stop all the troops coming down the valley until he could ascertain the state of affairs with Picton at Huarte, and then rode off at racing speed to Sauroren, where he arrived just as the French were forming their line of battle in front of Cole, and some of their troops were rapidly approaching Sauroren. It being now clear that the Allied troops coming down the valley of Lanz were intercepted, he wrote on the parapet of the bridge the orders which, as we have already seen, turned the 6th division and Hill's troops out of the valley of Lanz to come round by Lizasso and Marcalain to the village of Oricain, in rear of Cole's left. Lord Fitzroy Somerset, the only staff-officer who had kept up with him, galloped with these orders out of Sauroren by one road, the French light cavalry galloped in by another, and the English general rode alone up the mountain to reach his troops. It was late in the afternoon, and the attack which the French made resolved itself into a skirmish which was terminated by the darkness.

On the morning of the 28th, when Soult again attacked



Cole, the 6th division was rapidly approaching Oricain to reinforce Wellington, while d'Erlon, whom Soult was anxiously expecting, was still toiling up the pass of Bellate (*g*) coming from Elizondo. Suffice it to say that the efforts of the French to carry Cole's position were entirely defeated by the opportune arrival of the 6th division.

The crisis was now over, for Hill's force was at Lizasso within a few hours' march, and the 7th division on his right preserved the communication with Oricain.

On the 29th, the two armies at Sauroren remained inactive. At midday d'Erlon's corps arrived at Ostiz a few miles behind Soult's right in the valley of Lanz.

The French general, finding he could not hope to force the Allied position and break up the blockade of Pampe-luna, changed his plan, and resolved to attempt, by rapid movements and vigorous blows, to relieve San Sebastian instead. He accordingly sent his artillery and part of his cavalry back over the mountains directly after the battle, to join Villatte on the Bidassoa, and there await instructions. He knew that the mass of the Allied force was either collected in his front or was with Hill at Lizasso, and that, probably, other portions of their army were approaching that place; he therefore designed by employing d'Erlon's corps as the head of the wedge to transfer his army from the Zubiri valley, and crossing that of Lanz, to march on Lizasso where he expected to overwhelm Hill; and then, placing himself in a situation to interrupt the march of the Allies on San Sebastian, either by the Bastan or Lecumberri, where he would at the same time be in military connection with his reserve, to profit by events.

But this operation of drawing off his army across Wellington's front was a very delicate and hazardous one. In anticipation of this movement, a division of cavalry

crossed over on the evening of the 29th from the valley of Zubiri, and joined d'Erlon, who had orders to march on Lizasso early in the morning. During the night also, a division of cavalry and La Martinière's division of Reille's corps, which was on the extreme left of the French army, retired up the Zubiri valley and crossed into that of Lanz higher up, also to join d'Erlon.

*July 30.*—The French left wing under Reille marched along the crest of the heights from Zabaldica to Sauoren, relieving, by the arrival of successive divisions, those of the right wing under Clausel, which, as they were freed, followed d'Erlon who had marched early from Ostiz.

At 6 A.M. the state of affairs on the French side was this:—

Two of Clausel's divisions were already some way up the valley of Lanz beyond Ostiz. His remaining division, Conroux's, having been just relieved at Sauoren by Maucune's division of Reille's corps, was moving up the valley of Lanz after Clausel. Foy's division of Reille's corps was in march along the crest of the mountain from Zabaldica towards Sauoren. These two last-named divisions, then, Maucune's and Foy's, were the only ones which remained in front of the Allied army when Wellington began his attack, for La Martinière's division had gone off to join d'Erlon the night before; but Soult, relying on the strength of the ground, ordered Reille to maintain it till nightfall, and himself galloped off to join d'Erlon, with whose corps he designed to overwhelm Hill at Lizasso, coming up with that general just as he was preparing to attack Hill.

But Soult had miscalculated both the vigour and resources of his opponent. For Wellington, who noted that Lamartinière's division and the cavalry had been withdrawn, and that Zabaldica was evacuated, ordered Picton with the



3rd division, and some cavalry and guns, to enter the valley of Zubiri to turn the French left. The 7th division, which had come up, was ordered to sweep over the hills beyond the Lanz river upon the French right. Byng's brigade (properly belonging to Hill), combined with the 6th division, was to attack Sauroren village; and finally Cole with the 4th division was to attack the front. Campbell's and Morillo's brigades were detached by the road of Marcalain to insure communication with Hill, and that general was to direct his march upon Lanz and Olague, to threaten the French rear; but was prevented from fulfilling this part of the programme by the interposition of d'Erlon.

The result of Wellington's combination at Sauroren was as follows: Conroux's division, marching up the valley of Lanz, was broken and completely disorganised by the action of the 7th division against its left flank, while marching in column on a narrow front. Maucune's division was driven out of Sauroren and broken up, part following Conroux, the remainder flying up the mountain side to seek refuge with Foy; while Foy himself, attacked by Cole in front and by Picton on the left flank, was driven from his strong position and, with the many fugitives from Conroux and Maucune who had joined him, fell back along the ridge between the valleys of Lanz and Zubiri, and was obliged finally to retire through the pass of Urtiaga (*e*) into the Alduides. Meanwhile, Wellington, pressing rapidly up the valley of Lanz, overtook the rear of Clausel's column and drove it beyond the junction of the first road leading to Lizasso, and on beyond Olague, at which place the intelligence of Hill's battle with d'Erlon, which had been going on simultaneously with his own, caused him to halt.

We left Soult and d'Erlon just as they were about to attack Hill with the three divisions of d'Erlon's corps, and



two of heavy cavalry, while Lamartinière's division of Reille's corps was only a short way in rear. Soult hoped, moreover, that Clausel's three divisions would likewise soon come up to put the finishing touch to his work of demolishing Hill, who had only 10,000 men including Long's division of light cavalry.

Hill was so posted behind Lizasso as to cover the two roads, leading from that place to the great road of communication between San Sebastian and Pampeluna, by his left wing, while with his right he covered the communication with Wellington by Marcalain. Unable to maintain this position, however, he fell back after losing 400 men to some heights behind, where he still covered the Marcalain road, but left open the other two; by which last therefore Soult might, if he pleased, march through the pass of Lecumberri on San Sebastian without encountering other opposition than that of the light division, which, having been delayed in its march from the Santa Cruz mountain, only arrived at Lecumberri early in the morning of this same day (30th) whose events are now being related.

By adopting the resolution to march on San Sebastian, Soult might therefore overwhelm the light division or thrust it aside in his course, continue his march on San Sebastian, break up the blockade, and afterwards operate against the rear of Graham on the Bidassoa; while Villatte, with the reserve and all the artillery, assailed that general in front. On the other hand, Hill was reinforced by Campbell and Morillo, which raised his force to 15,000. Clausel had not as yet joined Soult, and might be prevented from doing so by Wellington; and though, with Lamartinière, he would have four infantry and two cavalry divisions, in all 30,000, he could not prudently encounter the light division posted in his front at Lecumberri, where

the ground was remarkably strong for defence, with Hill's force of 15,000 hanging on his rear.

These considerations being duly weighed, decided the French marshal to retreat by the pass of Donna Maria (*h*) on San Estevan, which was the only secure line. As far as San Estevan he would be safe, but there his dangers would commence. From that town he had the choice of two routes by which to regain France; one leading up the Bidassoa to Elizondo and thence through the passes of Maya, the other leading down the same river by Sumbilla and Yanzi, from both of which places roads branch off over the mountains to the pass of Echallar. There was yet a third way over the mountains leading direct from San Estevan to Urdax, beyond the Maya Passes; but it was a mere track, too steep and rugged for the wounded men and baggage.

What Soult would have to dread at San Estevan was, that Wellington, who by the pass of Bellate (*g*) could reach Elizondo before him, should block his passage on that side, while Graham closed against him the narrow defile of Yanzi and detached a force to intercept the road from Sumbilla to Echallar. The French would then be confined to the narrow track from San Estevan to Urdax, and their movements being retarded by Hill's pursuit, they might be headed at Urdax by the Allied troops moving by Elizondo and Maya.

It was clear therefore that Soult's safety would depend on his rapidity. Accordingly, calling in Clausel, he commenced his retreat on the same night (30th).

On the morning of the 31st, Wellington, having already sent on Byng's brigade by Bellate (*g*) to seize the Maya passes, himself led the 3rd, 4th, 6th, and one Spanish division, by the same route to Elizondo.

Hill's troops, with the 7th division, pursued Soult as far



as the pass of Donna Maria (*h*), where they overtook the French rear guard, and a brisk engagement took place; but when the French were once through the defile, Hill, leaving the 7th division to guard it, returned to Lizasso in obedience to his instructions, and moved by a short but rugged way which went from that place over the great chain to Almandoz, falling into Wellington's rear.

In the evening of the same day (31st), the light division moved from Lecumberri to cut in on the French line of march, and to head them if possible at Yanzi, where the light division would be supported by Longa's Spaniards, ordered up to Yanzi for that purpose.

Soult, not finding himself pursued beyond Donna Maria (*h*), halted at San Estevan, and this was the position of affairs on the afternoon of the 31st. The French were in a deep narrow valley. Three British divisions and one Spanish division, under Wellington in person, were behind the mountains between Elizondo and San Estevan which overlook the latter town. The light division and Longa's Spaniards were marching to block the Vera and Echallar exits from the valley, Byng was already at Maya, Hill was coming up behind Wellington by Almandoz, and the 7th division guarded the Donna Maria pass (*h*). It is difficult to conceive a more complete *guet-apens*. A few hours gained, and the French must surrender or disperse. Wellington gave strict orders against the lighting of fires, the straggling of soldiers, or any other indication of the presence of troops. He himself watched his anticipated prize from the shelter of some commanding rocks, and saw four gendarmes ride up the valley in a careless manner just beneath him, when at the same moment three marauding English soldiers entered the valley, and were instantly carried off by the horsemen. Half an hour afterwards, the French drums beat the 'assembly,' and their columns



began to move out of San Estevan towards Sumbilla. But the way was narrow, and the column, lengthened by baggage and by wounded men borne on the shoulders of their comrades, was of such an extent that the rear guard was still close to San Estevan on the following morning, August 1st. The Allied skirmishers thronged along the heights on the right flank of the column, prisoners and baggage were taken by the pursuers at every step, and numbers dispersed among the hills. \* The head of the column, instead of taking the first road leading from Sumbilla to Echallar, had passed on towards that leading from the bridge near Yanzi; the valley narrowed as they advanced to a mere cleft in the rocks; the Bidassoa was on their left; and there was a tributary torrent to cross, the bridge of which was defended by a battalion of Spaniards detached from Vera for that purpose, and had these been reinforced by Longa's division according to orders, only those of the French who, being still near Sumbilla, could take the road from that place to Echallar, would have escaped. As it was, the head of the column carried the bridge, and filed off to the right by the road from Yanzi to Echallar; but several divisions had still to pass, when the light division, whose march had been delayed, appeared on the heights above Yanzi on the left of the Bidassoa, and poured volley after volley into the struggling multitude on the road beneath them on the other side of the stream. Thus the light division was just too late to cross the bridge of Yanzi and head the French from Echallar, and the great body of the enemy escaped to that place; but the baggage and many prisoners were taken, and the general loss was very heavy.

On the 2nd August, Soult made a stand at Echallar with all the troops he had been able to rally during the previous night; but attacked in front and turned on both flanks,

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## CHAPTER XI.

## ON IRREGULAR WARFARE.

THE superiority of a regular over an irregular force consists in its drill, discipline, and mobility. Divided into separate units, the men composing these learn to know their officers and each other, and acquire confidence from their companionship by the habit of acting together.

Drill and discipline confer on the mobility of any regular military body a steadiness and compactness in which irregulars must be deficient. Through the habit acquired by constant exercise, a certain action of the regular soldier instantly—and, as it were, mechanically—follows on a certain word of command spoken by the officer. It is an indubitable fact, that many men who in their natural state would with difficulty be induced to face any danger, will, after having being subjected to drill and discipline, and by reason of the force of the habit of obedience, follow their officer to almost certain death. Association and the fear of shame, too, often confer a boldness which would not be found to exist in the same individual if solely dependent on himself. It may, therefore, be regarded as a general rule, that the drill and discipline of men in masses will increase their natural courage: if not courage of the highest order, it is still that which serves the required purpose—viz., readiness to attack and obstinacy to withstand an enemy.



But in disciplined armies there are two descriptions of courage—one, and the most common, that which has been alluded to in the foregoing paragraph as proceeding from association, mutual dependence, and the fear of shame: the other and far rarer sort is the result of individual force of character, which takes its spring from the heart alone, and manifests itself chiefly in self-reliance.

The courage which is instigated by fear of dishonour, and which limits itself to a rigid performance of duty while under men's eyes, is common enough.

That which pushes a man beyond his duty is much more rare.

But that which decides a man without hesitation to place his life below the success of an enterprise in which he assists, is rarest of all.

It is not to be questioned that the highest description of courage is manifested equally among irregulars and among disciplined armies, but only by the few. In large masses, the standard of courage which is established by discipline may be often inferior to that produced by fanaticism or any other peculiar excitement: the latter, however, never lasts long, neither is it equable, because men are of different susceptibilities, following their physical and mental conformation. Hence it arises that the great mass comprising every assemblage of men will be found to belong to the common-place class, whose courage is improved by discipline and association. But discipline and association are advantages which irregulars do not possess. On the contrary, while the courage and firmness of an assemblage of men are always great in proportion to their discipline and their confidence in each other, and are magnified by numbers, it is to be remarked, that a number of men collected together without mutual knowledge and dependence gather fear from association rather than courage.

A sudden panic, to which undisciplined masses are peculiarly prone, runs through them like wildfire; and the greater the number, the greater is the tendency to panic, as well as the panic itself.

Marshal Marmont says, 'The union of 100,000 men in one place far from their families and their interests; their obedience, their mobility; finally, the spirit which animates them and urges them at a signal from a single man eagerly to encounter a deadly peril which must infallibly prove fatal to many among them—present surely one of the most extraordinary spectacles which civilised society can afford. Nothing unites men with such strong and sincere ties as a community of interests, of dangers, and of glory; and as all things blend and react on each other in the great mystery called society, it is precisely in a state of war and in the midst of peril—that is to say, where society has the greatest need of it—that the sentiment of friendship, which in military life takes the direction of *camaraderie* and *esprit de corps*, is most habitually displayed.

'The sentiments of which I speak are not the only ones which ought to animate soldiers. It is indispensable, in order to derive from them their fullest value, that *confidence* should exist between the men who compose any military body. The soldier should believe in the value of his comrade; he should be convinced that his officer, equally brave, is his superior in experience and knowledge; above all, he should feel an implicit belief in the bravery and skill of his general. An army will thus compose a bundle of faggots which nothing can break.

'But this fundamental base which we call confidence is only possible among old and tried troops, and not among new levies which do not know each other's worth.'

The above reflections suggest some rules for the guid-

ance of an officer who may be called on to oppose irregulars or barbarians.

The first principle to establish is, that in a force composed of barbarians, their numbers are only formidable so long as they are inspired with confidence. And as they are peculiarly susceptible of panics, the tendency to which increases with every increase of numbers, the task of a scientific general commanding disciplined troops against them ought not to be very difficult.

It is, above all, necessary to avoid any course which might be calculated to inspire such an enemy with confidence; and it is, therefore, far less dangerous to attack such an opponent however numerous and however strongly posted *when once in presence*, than to hesitate or retreat from before him.

Where regular troops are opposed to barbarians, supposed very superior in numbers, any increase of the respective forces on both sides in the same ratio will be an advantage to the former; because, in the one case, it is a multiplication of intelligent power, discipline, and mobility; in the other, a multiplication of brute force and indiscipline and unwieldiness. It is evident, for example, that one man however well trained, can have little chance against five opponents however untrained: but increase the numbers on both sides, preserving the same proportion, and the chances of the smaller body constantly improve. Thus, ten trained men against fifty untrained may do much; a hundred against five hundred will do more; and so on. The trained force by every such increase multiplies discipline, skill, mobility, all its military resources; the irregulars gain in numbers and lose in everything else.

At Meeanee, Napier had 2,000 regulars against 30,000 irregulars, or one to fifteen.



At Assaye, Wellesley commanded 8,000 against 60,000, or less than one to eight.

Supposing Wellesley to have had against him 120,000, the proportion would have been the same as at Meeanee; but his chances as a general would have been better than Napier's, inasmuch as 30,000 barbarians are likely to bring quite as many men into effective action in a battle as 120,000 could do.

The Duke of Wellington had this principle in his mind when, in speaking to the poet Rogers of the siege of Paris by the Allies in 1814, he remarked that Napoleon should have waited for the Allies about Paris. 'Why so?' was the question. 'Because 800,000 of us would have arrived there nearly together.'—'But is not that rather a reason why he should not have waited?'—'No! when 800,000 people get together, there is a d——d deal of *jostling*!'

No disproportion of force, therefore, can justify a general in retreating from before barbarians after the two armies are once in presence. It is then, simply a choice of risks; and the danger of a retreat is always in such a case far greater than that of a bold attack. A manœuvring army acting against irregulars should, as a general rule, attack one flank, for the slowness of movement and unwieldiness of the large masses presented by the latter will certainly prevent their making timely dispositions to meet such an attack properly. One flank is then hopelessly overthrown, and confusion, soon converted into panic, seizes the remainder. This will in most cases be found to be the history of such engagements.

At Arbela, Alexander attacked the host of Darius by advancing in oblique order, left thrown back, against the Persian left; gained a decided advantage there, and wheeling round, charged the dense masses of Darius in flank; the effect of which produced a panic and occasioned the

complete rout of the Persians, although not one in twenty of them had been actually engaged.

In irregular warfare, generally-received military rules must often be violated, and may be so with comparatively small risk, provided such violation be methodical. Genius begins where rules end; and although it is always right and necessary to observe them where possible, they must not be allowed to stand in the way of that description of attack which is likely to be most effective in dealing with barbarians, where the relative numbers on each side usually form so great an exception to the experiences of regular warfare. Too much science and precaution cannot be displayed in operations against either a disciplined or a barbarian enemy: but where the latter is concerned, skill and prudence will often be best manifested by the disregard of mere military rules; and the boldest plan, always however methodically prepared, and executed on correct principles, will commonly be found the safest.

The Indian Mutiny furnishes many examples of the necessity of sometimes disregarding military rules in such a warfare; the siege of Delhi being the most remarkable, where a mere handful of Europeans besieged and captured a fortified town, garrisoned by a force ten times their strength, whose ingress and egress were free in every direction save that where the besiegers extended their narrow front. In such a warfare, the maxim *Divide and conquer* must be reversed: it is rather for the advantage of the regulars that their enemies should be allowed to assemble in large masses; for concentration, which is strength to the former, is to the latter weakness; and in this case the general issue of the rebellion was materially influenced by the encouragement which the possession of a fortified town like Delhi held out to the rebels to flock to it in large numbers, thus drawing them from their best

policy, which would have been to spread themselves over the country in every direction, in smaller, though still strong bodies, and to starve the Europeans by intercepting all their supplies. Yet, although the Indian Mutiny has been cited as an example, the term *irregulars* cannot with rigid propriety be applied to the Sepoys, who had been drilled and disciplined in European tactics. In their case, however, the great inferiority of race, as well as the adverse moral influence of finding themselves opposed to the *Sahibs*, more than counterbalanced any advantage they derived from the military training they had received. The Sikhs were unquestionably far more formidable opponents than our Sepoys, being greatly superior in race, as well as in all the essential qualities of a soldier; at the same time that the Sikh drill and discipline approximated to that of European armies. In the battles on the Sutlej, with no very enormous superiority of force, they shook the structure of British supremacy till it tottered; and the Sikh wars cannot, therefore, justly be referred to as affording lessons or precedents in dealing with barbarians.

The battle of Meeanee was probably the most formidable encounter with irregulars in which, on account of the combination of courage with superior numbers on the side of their enemies, British troops were ever engaged. The Ameers, too, manifested considerable skill in their arrangements.

The Belooch army — 30,000 strong, of whom 5,000 were cavalry — occupied a strong position twelve hundred yards in length along the dry bed of the Fulaillee stream; the banks of which, sloping gradually down towards the plain in their front like a glacis, afforded the infantry which lined them all the protection of a parapet.

The left rested on a Shikargah or hunting-forest, which was enclosed by a high wall having only one opening, a



gateway, about midway between the Belooch and the British lines, when these were first formed opposite to each other, that is to say, about five hundred yards from each : and in this wood 5,000 of the enemy's matchlock men were posted to annoy the right flank of the British in their advance, and to sally out on their right rear so soon as they should be engaged with the main body of the Beloochees in front.

The right was also protected by a Shikargah, on which it rested. The guns, 15 in number, were divided between the two flanks. The 5,000 cavalry were in rear of the whole, on an open plain behind the centre.

The British line advanced to attack in echelon of battalions from the right, two batteries of artillery and the Queen's 22nd regiment being in front.

The general, detecting the danger to which his right flank was exposed from the infantry in the Shikargah, rode up to the wall to reconnoitre. He observed that it was about ten feet high, and that the enemy had constructed no loopholes ; then riding into the gateway under a fire of matchlocks, he saw there was no scaffolding which would enable the Beloochees to fire over the top. The gateway was therefore simply of the nature of a defile, where a small force of determined men might hold in check twenty times their number. He accordingly took the grenadiers of the 22nd and thrust them at once into the opening, 'telling their brave captain, Tew, that he was to block up that entrance ; to die there if it must be, never to give way ! And well did the gallant fellow obey his orders : he died there, but the opening was defended.'

As the British line closed to within a hundred yards of the enemy, the voice of the general was heard along the line, commanding to charge. The guns on the right were run up at a gallop to the top of the bank of the Fulaillee,

whence they swept diagonally through the dense masses of Beloochees formed along the bed of the stream.

The 22nd also scaled the bank, thinking to carry all before them, but they paused in amazement at the forest of swords waving in their front, which, filling the broad deep bed of the river, and still clustering on the plain beyond, had been up to that moment concealed from their view.

Then began a contest which lasted for three hours, during which continual rushes were made by large bodies of these warlike swordsmen on the 22nd regiment, and as constantly repulsed with the bayonet. Far the largest share of the fighting fell to the share of this regiment, and of the general himself, for the rest of the infantry force was composed of native troops, and it is no longer necessary, out of deference to those pampered soldiers, to represent them as being otherwise than almost worthless in battle; although on this occasion, animated by the example and influence of their general, one of the native battalions behaved unusually well. Sir Charles Napier remained during the whole of the conflict on horseback, between the opposing lines, which were often not more than fifteen feet apart, and running nearly as much risk from the muskets of his own soldiers as from the enemy's matchlocks. He exposed himself to greater danger than any man in his ranks, because he saw that it was a necessity: the 22nd were young soldiers, and if they had given way the battle would have been lost, and with it, perhaps, the British rule in India.

Meanwhile, Jacob's Irregular Cavalry had attempted to penetrate the Shikargah on the Belooch right, for the purpose of turning that flank, but failed, owing to the deep nullahs which intersected the wood; and the general, perceiving the critical moment had arrived, then ordered

the whole of his cavalry, which was posted on the extreme left of the line, to charge *en masse* full on the front of the enemy's right. The success of this charge was complete, and decided the battle; yet the Beloochees retreated in such large masses, and with so determined a bearing, that the general did not deem it prudent with his exhausted troops to push the enemy in pursuit.

Such was the battle of Meeanee: and if we consider the individual bravery and strength of the Belooch warriors—many of whom displayed the most desperate and devoted courage—and their numbers, as well as the strength of their position; when it is remembered that the whole British force which faced the enemy did not exceed 2,000 men, and that of this number only 800 were Europeans, this must be pronounced one of the most extraordinary battles that ever were fought.

Sir C. Napier knew before the battle that an overwhelming force of enemies was assembled at Meeanee, and that its numbers were being hourly increased by the arrival of fresh tribes. He was acquainted with the circumstances of Colonel Monson's disastrous retreat before the Mah-rattas, and having read the Duke of Wellington's remarks on that catastrophe, had drawn from them the conclusion—never to give way before barbarians. 'Let the Beloochees be sixty or a hundred thousand,' he said, 'I will fight.' If he had delayed his attack by one day only, he would have had to encounter 50,000 enemies in place of 30,000, as was well established by the testimony of the Belooch chieftains themselves.



## CHAPTER XII.

## ON STREET FIGHTING.

THE cases in which the interior of a town not fortified is defended by regular troops are not likely to occur often. Villages, from their small extent, and capabilities of being put into a state of defence as a whole, belong to the category of tactical points, and must be embraced by both parties within the calculations of every battle-field where they occur. But with open towns the case is different: from their extent only a part of them could usually be put in a state of defence; for it would require an army so to occupy a large open town as a defensive post, that an assailant should not be able to penetrate it. The extent to which an open town could be usually available as a tactical post would be to support a flank; but for this purpose only a small part could be profitably employed. Very much the same reasoning applies to this supposed case, as has been already used in the case where one flank of an army rests on a forest or large wood.\* The extent of the town, equally with that of the wood, will determine the degree of passive protection it affords to the supported flank, as well as the measures proper to be adopted for converting either into a means of active defence. It is however obvious that an army, if unopposed, will find

\* See p. 350, on *forest and mountain warfare*.

far less difficulty in penetrating a town than a wood or forest.

On the other hand, walled or fortified towns are always of great importance, both in a strategical and tactical sense. An army supported by such a town has a commanding position from which it cannot be dislodged except at the expense of the tedious operations of a siege: the town forms a pivot for the movements of the army in the field, which not only cannot be carried but cannot be approached by an enemy: it affords in short a sure protection, and, where it is a magazine, supplies in addition. These are the reasons why, in offensive operations, towns, which when open may usually be neglected, must when fortified be either blockaded or besieged—that is to say, supposing they be within the sphere of operations of the offensive army.

Almost the only case in which an attacking army might be obliged to force a passage through an open town defended by regular troops, is where it covers a bridge over a great river, of which it may be indispensable to the success of the operations to obtain possession. On the continent of Europe such are for the most part fortified places, constituting regular *têtes de pont*.

On the other hand, it may frequently happen that a besieging force, having penetrated into a fortified place by regular siege and assault, finds the garrison still resisting and still in possession of the streets and the greater part of the ramparts.

How to proceed in either case is the question here proposed for discussion.

A defensive position in a town must fulfil the conditions which have been laid down as essential in every military position, viz., security to the flanks, strength to the front, easy communications along the rear, and easy lines of

retreat. The method of organising such a position in a town is generally to draw a cordon across the town, covering that part which it is intended to defend. The flanks will be the first objects of attention. If the town be fortified, the flanks will rest on the ramparts on each side, and will be made as strong as local circumstances will allow. The ramparts where the flanks rest will be cut across by a ditch and parapet behind, and any high and strong buildings should be occupied from which a fire could be directed against the flank of the assailants as they advanced along the rampart to the assault of the trench and parapet. If there are no ramparts, the flanks should rest on some large strong buildings; and, in order to protect the rear, the line of defence should form a return face to the rear at each flank, the termination of which must be as strong as possible. The line of defence between the flanks is formed by constructing barricades across all the streets of approach; the houses on each side of which will afford a flanking defence to the barricades. Thus each street forms a veritable defile; the enclosing houses being occupied by troops whose free passage from one to another is insured by breaking a way through the partition walls, or creating a means of communication along the roofs, or by both methods at once. The assailants must then either venture into the streets, exposed to a direct fire of grape from the barricades, and to a flanking musketry from the houses; or they must fight their way through a long line of houses in succession—the passage from every house to the next being a defile of the most formidable description. The defenders would besides fortify and occupy with strong garrisons any large and strong buildings in front of the general line of defence which happen to flank the approaches of the enemy, provided always that the safe retreat of the garrisons could be secured; also all such



buildings which, being in rear of the line of defence, command and strengthen the avenues of retreat.

It is evident that to attack such a position in front and by open force would be a very formidable operation, and one little likely to succeed. No troops even with artillery can force barricade after barricade in narrow streets, with the houses occupied by foes: their number would soon melt away. The secret of this kind of warfare, therefore, is the same as that of mountain warfare—namely, for the assailants to force the defenders to attack, if possible, by taking up positions which molest them. By superior knowledge and skill on the part of the former, the latter may be thus reduced to act against fortified houses and barricades, instead of under their cover. Such would be the case if the assailants, working round one flank of the defensive position, succeeded in establishing themselves so as to threaten its communication with the rear. It is generally to be expected, however, that the flanks will have been too well secured to admit of this being done. It will then only remain for the assailants to direct their approaches against different parts of the front: and this should always be accomplished by means of the mattock and the mine, unless the imperative necessity of saving time should justify the enormous sacrifice of life that would be entailed on an attack by open force. At Saragossa, the real defence of the town only began after the French obtained possession of the ramparts. ‘The city was divided by the large streets into a number of small districts or islands of houses. To gain possession of these, the besiegers were obliged not only to mine, but to fight for each house; and to cross the great intersecting streets it was indispensable to construct traverses above or galleries below ground; for a Spanish battery raked each street, and every house was defended by a garrison. As

long as the convents and churches remained in the possession of the Spaniards, the progress of the French among the islands of small houses was of little advantage to them: the strong garrisons in the greater buildings enabled the defenders not only to make continual and successful sallies, but to countermine their enemies, whose superior skill in that kind of warfare was often frustrated by the numbers and superior energy of the besieged.\*

In such a warfare it is evident that the assailants must proceed slowly and cautiously; pushing their advance by regular sap, and forming regular parallels to connect the heads of the different approaches at certain intervals. The first thing to be done is to effect a lodgment. When any strong building or system of buildings can be seized and fortified by the assailants in a town which is in the possession of a hostile force, they are then said to have effected a lodgment. If one lodgment only is effected, it will be for a time an isolated post in the midst of enemies, and no pains should be spared to strengthen it. The communication directly to the rear is covered by the lodgment; but the line of retreat must also be secured on the flanks by barricading the streets which lead to it from right and left, and by fortifying any prominent buildings that command it. Where more than one lodgment is effected simultaneously, each will form the head of its own particular approach, and the lodgments must be connected as speedily as possible by a parallel. Where ramparts exist, the flanks of the assailants will rest upon them, similarly to those of the defenders as already described. Where there are no ramparts, the same measures should be taken by the assailants to secure their flanks as have been prescribed for the opposite party.

The attacking force would then have established itself

\* Napier.

in partial possession of the place, but with a necessity to enlarge its position still further, which must be effected in the same manner as before—by regular approaches and new parallels. Thus the defenders, to arrest the progress of their enemies, must take the offensive, and attack the fortified positions held by the latter; and so the struggle would go on until one party or the other was pushed out of the town.

Applying the foregoing remarks to the reduction of towns defended by an insurgent population—in which it is hoped that British troops will never be engaged—the experience of the Paris insurrection of June 1848 should teach a lesson never to be forgotten. The troops were on that occasion so unskilfully handled, that they suffered an enormous and unnecessary loss. They were led to the attack of barricade after barricade through high and narrow streets, the houses of which were swarming with foes, without any attempt being made to fight the insurgents with their own weapons. If they had broken into the enclosing houses on both sides of a street, at the farther end of which a barricade existed, and pushed their way from one house to another until the barricade was turned—which the superior means at their disposal would have enabled them easily to accomplish—their loss would have been comparatively trifling, and the general struggle would not have been prolonged as it was by the encouragement derived by the insurgents from the partial reverses of the troops.

It has been held by some military authorities, relying on the experience of Buenos Ayres, of Rosetta, of Saragossa, of the earlier insurrections of Paris during the first revolution, and of Brussels in 1830, that soldiers cannot successfully contend in the streets against an armed population, and that the troops should quit the town at once



and take position outside. But this belief arose from a wrong view of facts; the failure of the troops in all these instances having been the result of mismanagement, not of inherent weakness.

To abandon the town, would be at once to give every physical and moral advantage to the insurgents, as well as time to improve them; after which it would still remain to the army to fight its way back again!

The true principle of action in such cases is very similar to that which has been prescribed above; namely, to oblige the insurgents to waste their ammunition and their constancy against the fortified positions of the troops, while the latter would be kept in masses to make special attacks with artillery on particular points, without being scattered or weakened by being employed simultaneously in partial attacks; the cavalry at the same time forming a moveable investment round the town and cutting off provisions from the insurgent force.

If with these precautions an army should be beaten, it would be only because its means were entirely below the emergency, or because the chiefs were without firmness. Proof of this is afforded by the second siege of Saragossa, by the reduction of Madrid by Napoleon; also by Napoleon's subjugation of the Paris sections on the 13th Vendémiaire.

The following extract is from a letter written by the late General Sir Charles Napier in the 'Naval and Military Gazette,' in reply to a publication by the Prussian general Von Grollman, who asserted that the French during the siege of Paris were driven from the village of Aubervilliers by the Prussian troops, the British having failed to accomplish that service in consequence of their ignorance of war, of their unfitness for outpost duty and for all the details which precede and follow a battle. The extract is here

given both on account of the illustration it affords of the foregoing remarks, and of its intrinsic interest and character.

‘... The general then says: “A reconnoitring party despatched towards the Ourcq canal, by whom the enemy was driven with loss from the village of Aubervilliers, confirmed the intelligence that the enemy had strongly fortified the line of Ourcq canal, and occupied it with so great a force that an attack upon them must have been both a difficult and a doubtful undertaking.” Now, here General Von Grollman and I differ as to facts: the line of the canal of Ourcq was, no doubt, strongly fortified; the attack might have been “difficult” even to British soldiers, and was “doubtful” to Prussian soldiers; and the fact may have been as General Von Grollman asserts, namely, that the Prussian army in consequence of the danger moved to a more easy point of assault on the south side of Paris, leaving the tougher attack on the north to the British. This was all in character. The Duke of Wellington, I believe, gives a different reason, and says it was want of supplies that made the Prussians move; and the Duke will be believed in preference to General Von Grollman in all ages, and by all nations except the Prussians. But, admitting that the Prussian general is correct in his assertion, that timidity, not hunger, made the Prussians shift their quarters, I take leave to say that the enemy *were not driven with loss from Aubervilliers* by the Prussian reconnoitring party.

‘I was present at the attack of this village by the British, and the following account of it will illustrate my contradiction of the assertion that we are ignorant of war, and “incapable and unfit for foreposts and detachments, for all that precedes and follows a battle;” and which exhibits the slender acquaintance that General Von Grollman has



of the British troops; for it will show that the superiority of the Prussians is *far from being proved*, and could only be asserted by a Prussian officer. A heavy fire of musketry was maintained by 1,500 Prussians for a whole day against the village of Aubervilliers (mentioned by General Von Grollman): if I overstate the number of Prussians, or the time they were in the village, I may be corrected; I trust to memory; but whether above or below 1,500, the Prussian detachment was very strong, and the French officer who commanded against the Prussians told us he had but 300 men in the village.

‘The late Sir N. Campbell was ordered to relieve the Prussian detachment with three light infantry companies of Sir Charles Colville’s brigade, amounting to under 300 men. I went with him. We found a constant firing maintained by the Prussians, which fire was apparently disregarded by the French, who scarcely returned a shot. The Prussians had not dislodged the latter from any part that they had occupied at the beginning of the attack, and were themselves covered by some houses and walls from which they kept up this useless fire. On our arrival, the Prussian commander gave Sir Neil Campbell directions as to what he ought and ought not to do. The Prussians had done nothing but waste powder and ball, and we saw neither killed nor wounded men: therefore, though the Prussian officer and his men were, no doubt, brave and experienced soldiers, Sir Neil Campbell resolved not to imitate their mode of attack, of which the failure, up to the period when we relieved them, was evident. We occupied the ground quitted by the Prussians. Campbell made his reconnaissance and laid his plan, then attacked and carried two or three of the highest houses; from the top of these he broke into those which were lower, but without much firing—only a few shots in breaking through



the division walls of some houses—for the French did not seem resolved upon an obstinate defence. In about two hours we possessed ourselves of one side of a whole street, with a communication from house to house through the partition walls, and thus we quickly became masters of the greatest portion of the village. The French officer asked Sir Neil Campbell if we were Prussians. Answer, “No! British.” “I thought so,” said he, “from your different manner of attack. Those Prussian fellows have been firing for hours, and could not dislodge me from a single house. Will you consent to a flag of truce, each to hold his own ground?” Campbell accepted the offer, as he had already possessed himself of the greatest part of the village; and we had reason to believe that a battery from the canal would open upon us, if the French were wholly to evacuate the post. The part they held was between us and the battery. Sir Neil reported the proposition to his commander, which was consented to; and thus we remained two days and the intervening night. The Prussians would never have taken the village in the way they went to work when we relieved them; they must have expended as much ammunition as if they had been in a general action, and this at a time when Von Grollman says they had not a cartridge to spare. They were perfectly safe, and so were the French: indeed, unless an epidemic disease fell upon them they might have been there to this day, and (as far as any loss from fire went) they would still be “in marching and fighting condition, ready to take advantage of every lucky accident;” so that if a *lucky accident* took place—such as the French quitting the post of their own free will, or that they were dislodged by the British—the unhurt Prussians would have been all fresh and ready to plunder the houses, or march on to Paris for the same purpose. General Sir Charles Colville was there,

and can correct me if my memory has been at fault in any part of this account; but the assertion made by General Grollman that "the Prussians drove the French with loss from the village of Aubervilliers" is a mistake. And now, reader, let me ask a question as well as General Von Grollman (he is fond of questions)—Which discipline and knowledge of *forepost duty* is best, that of the 1,500 Prussians who made no impression on the village, who unsuccessfully fired many thousand rounds of ball cartridge without effect when there was a want of magazine for the army, or the 300 British who at once possessed themselves of as much of the village as their commander thought right, purposely leaving to the enemy that part which made him a screen against his own batteries; who did this with scarcely any firing, and without any fuss, courageously and cautiously breaking into one house from another, with two sledge-hammers, a heavy beam, and a dozen resolute warriors standing "in the slips" ready to force through the aperture and come "to the scratch," and who did so the instant a hole was made? the intrepid, the unflinching, the indefatigable Neil Campbell directing all himself, as prominent by his courage as by rank. And is a Prussian officer to persuade us that the English are unfit for "forepost and detachment" duties? General Grollman has mentioned Aubervilliers, and I have given what I recollect of the affair. If I am wrong in any details, it signifies little; the fact remains the same, namely, the village was attacked and not taken by the Prussians, and they were relieved by an inferior force of British, who did take it; and if that brave and honourable French officer who commanded be alive, let him say against which he would prefer (as a matter of safety) to defend a village; against 300 English, ignorant of outpost duty, or against 1,500 Prussian experts?



‘When I read General Von Grollman’s expression “tedious and difficult village fighting,” used in the third paragraph of his paper, I did not quite understand it; but when I recollected Aubervilliers, the matter cleared up. Yes, it would have been *tedious* enough, had not Neil Campbell and his 300 light infantry arrived to end its tediousness. As to its difficulty, General Grollman knows his own troops best. It may have been difficult to the Prussians, to the English it did not appear so. General Grollman says they “drove the French from Aubervilliers with loss,” which I dispute, though I admit they tried to do so. As General Grollman probably states what he heard, and as I state what I recollect to have seen, it is in that case to be supposed that Prussian reports of “forepost and detachment” successes are not so accurate in *fact* as they may be scientific in terms. In mentioning the French officer who commanded at Aubervilliers, I called him “brave and honourable;” the reader shall judge with what truth. When this officer demanded a “parley,” he was in a house nearly opposite that in which Sir N. Campbell and myself were. The truce being agreed upon we were careless in going to the windows, and a private in the 54th regiment, standing in the room with us, was shot dead from a distant window on the opposite side. He did not make the least exclamation or motion. I never saw death so sudden; the ball passed through his brain.

‘He was probably the last British soldier killed in that long war. All were very angry; and the first proposal was to make a general attack, and give no quarter; but there were present a few cooler heads, among which fortunately was Neil Campbell himself, who ordered all to be quiet while he represented the case to and demanded satisfaction of the French commander. This officer at once answered, that he was shocked, that he knew nothing, but would go



instantly to the house whence the shot was fired and enquire. "If you like to do so, take vengeance on me," said he to Campbell, as he ran downstairs and stood in the street. "If you doubt," said he, "fire;—there is my breast!" and he threw open his coat. Had the reader seen our state of excitement at the moment, he would be aware of the danger which this resolute man incurred by what he did. But British discipline is superior to human passions. When the French officer appeared, the loud voice of Campbell rang through the street, "Let no man fire without my orders;" and vengeance for a comrade slain during a truce was dormant. I doubt much, from what I saw, whether Prussian discipline would be equally obedient. The French officer made his enquiry: he came back and told Campbell that the man who fired was a young conscript; that he had not understood what was going on; that he (the officer) left the decision to Campbell; that it was a mistake, but that he and many others then stood purposely exposed if the English chose to avenge the accident. Sir Neil Campbell said, "No;" that we wanted not retaliation for an error—that his handsome conduct had proved it to be one, but that he must be aware the truce was at an end, lest some other accident should occur. The Frenchman's conduct was throughout brave and loyal. Both sides afterwards kept under cover until the French retired. For these reasons I called that officer brave and honourable.'

## CHAPTER XIII.

ON THE INFLUENCE OF THE IMPROVED ORDNANCE ON INFANTRY  
TACTICS.

ONE principal effect of the improved firearms is to give increased importance to the movement of troops in extended order, and to the rapidity of their march, more especially in the case where they are required to assault an enemy's position. It has already been laid down, that troops advancing to attack must—

1. Adopt that formation which will expose them to the least possible loss from an enemy's fire while passing over the intervening ground before they can come to close quarters.

2. That they shall be exposed to that fire during the shortest possible time.

Napoleon said, 'There is no infantry, however brave, which can without artillery march with impunity ten or twelve hundred yards against sixteen pieces of cannon well placed and well served: before it could accomplish two-thirds of the distance, those men would be all killed, wounded, or dispersed.'

When it is considered that the range, the accuracy, and the destructive effect of artillery are all so greatly increased, it must be admitted that if infantry is to retain its importance as the principal military arm, a considerable

modification must take place in its movements and organisation, and to a certain extent in its equipment.

In obedience to the second maxim above given, the object should be to confer upon it the utmost rapidity of movement that is compatible with the effective action of an attacking body when it comes into collision with an enemy.

A high rate of speed can only be obtained by preserving the soldier in first-rate health and training. But the effective action of an attacking body depends not only on the rapidity of its movement, but, when it comes into collision with an enemy, on the coherence or compactness of its formation. It has been the habit in our service to consider that the two are incompatible, and that in enforcing a high rate of speed we should sacrifice the steadiness and *solidarité* for which the British infantry is preëminent. The apprehension is groundless. All that is necessary is, that the soldier should be kept in training by constant exercise, and that he should be constantly practised in manœuvring at the increased pace.

To secure the greatest possible immunity from an enemy's fire in accordance with the first maxim troops should move to the attack in extended order. Now, movements in extended order demand a higher degree, not only of speed, but also of intelligence in the individual soldier, than movements at close order: of speed, because the distance every man must traverse, except the file of formation, increases with the degree of extension; of intelligence, because the necessity to act and think for himself becomes in each soldier great in proportion to his isolation. But, while it is said that such movements require higher individual intelligence, it is certain that the habit, combined with judicious instruction, will of itself go far to educate the intelligence up to the required pitch.



There is no question that the intelligence of the British soldier has been materially increased, because exercised, by the musketry instruction he has received for some years back: and just as it has been deemed expedient to arm the whole of the infantry with the Enfield rifle, so it is no less necessary, in presence of the powerful artillery of the day, that all infantry should be light infantry, and should receive a well-considered course of training, calculated to develope to the utmost both the physical and mental qualities of the individual.

The course of gymnastic training which the French confer on their Chasseurs d'Elite is very elaborate indeed; and their military writers urge the necessity of giving them also special teaching in their peculiar duties, which shall embrace instruction in the best methods of reconnoitring a country—of exploring a copse—of visiting a house, farm, or village. Those who have had the advantage of serving with French troops will smile at the idea of their requiring any instruction in the last particular; for, assuredly, more skilful and effectual *visitors* of dwelling-houses and barns, either in an enemy's or a friendly country, it would be hard to find.

A Russian military writer, Colonel Okonneff, goes still farther, in recommending that all light infantry soldiers should be made to acquire a certain knowledge of topography, in order that they may be able to appreciate the tactical peculiarities of any position.

It must be admitted that there is room for improvement in the training of the British light infantry soldier. His training can only be given regimentally, and there is consequently a diversity of systems of instruction—that of some regiments being better than others, and many being excellent.

In the training of every light infantry soldier, the leading points to be observed are—

1. Instruction in rifle practice, on which it is superfluous to enlarge, seeing the importance attached to it and the results already obtained.

2. The development of his physical qualities, by exercises during peace, peculiarly suited to prepare him for the serious business of war; and without going quite so far as the French in this particular it may be said briefly, that no pains should be spared to confer activity, speed, and endurance. In describing the Roman army the historian Gibbon says, 'So sensible were the Romans of the imperfection of valour without skill and practice that, in their language, the name of an army was borrowed from the word which signified *exercise*. Military exercises were the unremitted object of their discipline, and it was carefully observed that the arms destined to the imitation of war should be of double the weight which was required in real action. The Roman exercises comprehended whatever could add strength to the body, activity to the limbs, or grace to the motions. The soldiers were diligently instructed to march, to run, to leap, to swim, to carry heavy burdens, to handle every species of arms, &c.'

3. The development of his individual intelligence: that is to say, to give him such instruction as appeals to his understanding, and is likely to open his mind; to teach him something of principles, so that he may apply them correctly when placed in situations where he will be obliged to think for himself, and to depend on himself alone, as the light infantry soldier must frequently be. Skirmishers certainly require more individual training, intelligence, and self-reliance, than men in close order, who fight shoulder to shoulder, and who are accustomed to fire, to advance, or to retire, by direct word of command alone. The skirmisher must often act on his own judgment. He should know something of the principles of tactics; he

should have an eye quick to seize a position of vantage whence, sheltered himself, he may annoy his enemy. Although, at a review, skirmishers advance, retire, and fire by command; in the heat of action, on broken ground, in a wood, every man must 'fight for his own hand.'

It is too much the case in our service that light infantry instruction is limited to mechanical details, which prescribe the parade modes of extending, closing, firing, advancing, and retreating. It is too often lost sight of, that although this mechanical instruction is indispensable, it is only the foundation on which an intelligent superstructure is to be raised. The precepts of the drill-book are, necessarily, only applicable to a level parade-ground; and an evil consequence of this is, that in some cases the soldier receives no other instruction, and he therefore learns to consider the perfection of a movement in extended order to consist in keeping the proper distances between files, and in preserving an accurate line: whereas the instruction he receives should enable him to apply the drill-book details to ground of every formation.

The secret of success in light infantry movements is, *to obtain the speed of irregularity, and yet to divest it of confusion.* In skirmishing with an enemy, it will often happen that a mob of men rush forward suddenly, and at racing pace, to seize upon some post of tactical advantage; and it should be an object of special instruction that they may be able to resume in a moment an orderly formation out of that confusion—confusion which will in that case be only apparent, not real.

For this purpose, it is indispensable that the files should be numbered, and the men constantly practised at forming or rallying on any named file in their proper places with respect to that file. Commanding officers can hardly devote too much attention to this point.



If the men always preserved the same file numbers in the company, it would be easy for the most stupid soldier to assume his proper relative place in a rally or formation after any temporary confusion.

On the other hand, it may be urged, that what we have to prepare and train our soldiers for, is the possible events of a battle, where gaps are created in the ranks by casualties which would necessitate a new 'telling off' of the files remaining; that a skirmisher who had always stood number five, for example, would be more confused and less likely to act correctly under a new number, than if he had been constantly exercised on parade in changing his place in the rank and acting on a new 'telling off;' that the men of a company should therefore be accustomed to change their file numbers during instruction drill; and that by this means the confusion arising from the casualties of battle will be reduced to a minimum.

But here occurs an obvious difficulty; namely, that in rallying formation after temporary confusion, it is not only necessary that each man should know his own number, but that he should equally know the file numbers of every man of his company; that, in fact, the file number of every man should be as familiar as his name, and should be suggested as readily by the sight of his face: and this could only be by invariably giving the same number to the same man. It will seldom happen, even on parade, that the file numbers of some of the men are not changed by casualties; but it may always be arranged that most of them bear the same numbers on every parade.

The last paper that was ever dictated by the late Sir William Napier, who has been so largely quoted in this book, a few weeks before his death, was one of instructions or advice to volunteers concerning their drill. Napier was trained by Sir John Moore at Hythe, served as captain and

for several years as commanding officer of the 43rd Light Infantry through that war of which he afterwards became the historian; a more experienced and able light infantry officer did not exist in the army; and he therefore speaks with an authority the writer cannot pretend to.

‘I told off my men by numbers, 1, 2, 3, &c., and practised them to suddenly run back or to advance in the most confused mobbish manner, either to rally readily or to seize an advanced position. The first man who arrived at a rallying-place served as a point on which the others formed without confusion, because taught to know their relative places from the first man. For this object, I made them always take the same post in line on parade: that is—No. 6 was always No. 6, and so forth; and if No. 6, for example, arrived first at the rallying-point, No. 10 or 12, or any number that followed, could form at the distance at which he stood from the other in the rank at parade, leaving space for the others to fall in without confusion as they came up.



#### ‘EXAMPLE.

‘My command would be, “Soldiers, do you see the enemy’s skirmishers advancing to that hedge, bank, ditch, rocks, whatever the thing might be? Yes! Well, forward at speed, and seize it before them.” In an instant, the race and emulation fired them; they used to dash furiously forward even on parade, and in battle generally gained the ground first. With this practice, your men will soon acquire an eye for good cover, and, joined to the other plan for rallying, will be good skirmishers, provided they are

first taught by other more mechanical drillings to understand their business as soldiers, and very little will do that.

‘Suppose you are outnumbered and the enemy begin to outflank you, your reserves must move out rapidly to extend and oppose the flankers; but suppose you have no reserve, you are outflanked—you retreat. A formal retreat by alternate files, such as an adjutant teaches, will expose you to great loss and confusion; and if the enemy knows his trade he will run in on you as hounds do when close to a fox: and this you also, when master, should do to him, in defiance of the Christian doctrine; that is to say, you are to do to him what you would not like him to do to you.

‘If your flanks are too far off for the voice, send officers and wave your sword, pointing to the bank, rocks, or hedge, behind which you design to make a stand;—off they go in mobs, supports and all, at a pace that the enemy can’t follow so quick as not to give you time to rally according to my plan on No. 1, 5, 15, or any number who gets first; for the pursuers would be obliged to look ahead, and keep their formation from the fear that cavalry or reserves might be at hand.’

In the Drill-book, No. 7, *General Principles of Light Infantry* (first paragraph), is liable to be misunderstood. Here it is of course simply intended to prescribe that skirmishers should not mask one another’s fire. The essence of skirmishing consists in taking advantage of the nature of the ground. Thus, any number of files may, and should, by a sudden rush seize any ground in their front, where their numbers can find cover. The fire of the general line in rear protects their flanks, while their fire reciprocally protects the front of the general line. The limit to the distance of such an advanced post from the general line of skirmishers is prescribed by the possible power of the enemy to overwhelm the advanced post by a



sudden dash before it can be supported: therefore, the general line should not be at a much greater distance in rear of the advanced post than the enemy's skirmishers are from its front. In advancing, the method of proceeding would be for the files in rear of the obstacle or shelter to make a rush for it when within proper distance, and establish themselves there, while the remainder of the line continues its forward movement at the usual rate of advance.

Military principles apply to skirmishing equally as to all other operations in war; and the leading rule, that you should always so act as to be superior to your enemy at the point of collision, may be practically applied to skirmishing, in the following manner:—

Suppose the enemy's skirmishers to hold a line of cover in your front from which you are to dislodge him. A drill-instructor may teach that the line is to be carried by a simultaneous rush, but by this method file is simply opposed to file; the enemy has the advantage of cover, and you suffer loss. Instead of this mode of proceeding, a quick officer will select some weak point, and a dozen or twenty files, or more if advisable, will make a rush for it. The suddenness of the thing will have its effect, and your superior numbers will overbear opposition; you will then have made what was called 'a point' in the old light division vernacular, and the result will be that the enemy's line must give back, for the assailants will have established a post in their midst, flanking them right and left, while the general line of the assailants, advancing, presses them in front.

'If you spread skirmishers out, and merely skirmish to your front, according to parade teaching, you do away with half their personal intelligence and half their rapidity, and parade rules are not always applicable to fighting ground.

My notion, therefore, was not to break down all formality of movement and formation ; for they are good beginnings and awaken the men's minds to their business : my object was to go beyond them, and whether advancing or retreating to gain my point by the rush of a mob ; the men being from my previous teaching able to re-form rapidly in regular order, and overwhelm the scattered enemy. You should therefore watch, and entice the enemy to spread out, having for yourself the power of suddenly concentrating in the most rapid manner : that is, you gain the speed of irregularity, and yet divest it of confusion.

‘If you are on the defensive on a height, use as few skirmishers as you can, and make your supports strong, if you can give them cover from the enemy's fire. This will enable you to fall with fresh men on the enemy's tired skirmishers, when they approach the summit of the height you are defending.’

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The great military problem of the day is, to adapt infantry movements generally to the new conditions of warfare introduced by such engines of destruction as the Armstrong shell ; one of which conditions is, as has been already said, that all infantry must be in future what has hitherto been distinguished by the name of light infantry ; and the subject is one of so great moment that a committee of carefully selected officers might well be employed to consider the best means of effecting the required object.

The experience of the present contest in America would

\* Sir W. Napier.

seem to point to the conclusion that a position in an open country, which has been prepared for defence, cannot be carried by direct attack by troops moving in close order, exposed to the present field artillery. In nearly all the great battles of the civil war, the assailants, except where a surprise was effected as at Corinth, or when operating in a wooded country as at Chancellorsville, have been defeated by artillery fire.

The point for our consideration is, whether movements in extended order, hitherto limited to light infantry, may not be applied to all offensive movements, where troops marching to the attack may have to pass over open ground under fire; whether it may not be possible to form a highly trained infantry which could advance rapidly in extended order, and yet concentrate for attack without confusion. Such a force would have nothing to fear from cavalry, for that arm cannot show itself on the ground between two hostile armies without the risk of being destroyed; and both on account of its increased speed, and of its extension, the danger to be apprehended from artillery would be greatly reduced.

The difficulty consists in this, that the close formation must be resumed before collision with the enemy; and it will be objected obviously that troops who have advanced to the attack rapidly in extended order, and have closed before charging, must meet the shock at a great disadvantage on account of fatigue and loss of breath. And the objection is valid, though not probably to the extent of dismissing the proposal as an impossibility. Troops advancing in close order to the assault of a position are subjected to a like disadvantage, though less in degree; as, for instance, where men with packs on are led up a steep hill-side at the double, to the encounter of an enemy, perfectly fresh, at the top! But the disadvantage may be



greatly diminished, if not altogether removed, by preserving the men in such training and condition as to make them capable of greatly increased endurance in wind and muscle.

But it will be asked, how can a brigade, for instance, advance in extended order to attack an opposing part of an enemy's line, seeing that one battalion in line, 800 strong, extended four paces, will cover a front of more than 1,300 yards; while the brigade formed in the usual close order in line, supposing it to consist of three battalions, covers only 716 yards, including intervals?

Thus, if a brigade advanced in line in extended order it would cover nearly 4,000 yards, with the necessity of contracting that space before collision to 716 yards, a manifest absurdity; but there is no obligation to advance in one line, and it will be found possible to reduce the extension of the brigade within manageable limits; thus—

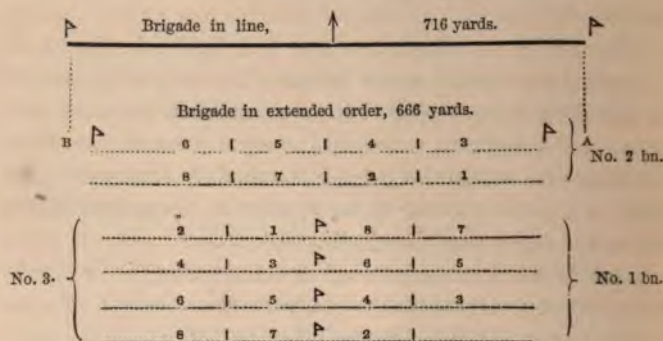
The centre battalion, or No. 2, to be in two lines, the first composed of the four centre companies, the second of the remaining companies as marked in the diagram.

The two flank battalions will be in four lines directly in rear of the centre battalion: No. 1 being in a column of grand divisions left in front, No. 3 in a column of grand divisions right in front; the inner flanks of these two regiments meeting each other behind the centre of No. 2.

The brigade will thus be formed in six lines, each line consisting of four divisions having a front of 200 men.\* Let the lines be fifty yards apart; extend them four paces, and the front covered by the extended brigade will be exactly 666 yards, or 50 yards less than the front of the brigade line.

\* For convenience the battalion is supposed to be divided into eight companies, each of 100 men.

When it is desired to form brigade in line at close order, No. 2 would close on its centre, Nos. 1 and 3 doing like-



wise, which would bring them into the position for deploying in the shortest time. But with highly trained troops, and with staff officers who are expert in the correct judgment of distances, the movement might be executed at once as in a rallying formation. The points A and B mark respectively the right and left flank of the brigade when formed in line, which points are just 25 yards beyond the resting-place of the flanks of the brigade when in extended order.

The above suggestions are given for what they are worth; and, indeed, they are hazarded more for the purpose of directing attention to the subject than with any confidence in their merit. In order to arrive at the solution of the problem, it is necessary that such manœuvres should be tested by the actual movement of troops. In any case, it can never be hurtful for a commanding officer to exercise his men in all sorts of formations in extended order. He never can say when he may need to put them in practice. But there is a maxim relating to all drill that should never

be lost sight of, namely, that while manœuvres cannot be too intricate or complicated for parade purposes, with a view to exercise and sharpen the wits of the men, none but the simplest movements should be undertaken before an enemy.

During the Canadian rebellion, the light company of the 22nd regiment had to carry an intrenchment defended by sharpshooters. The captain saw that to advance against it over three hundred yards of ground (or rather ice, for it was on a river in winter) at close order would be to insure a serious loss; he accordingly ordered his company to extend from the centre, and in that order ran in upon the intrenchment and captured it.

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Since the foregoing pages were printed, a question has arisen of which it would be difficult to over-estimate the importance in its bearing on the future comparative efficiency of European armies; it demands, therefore, some notice in a military work.

The execution done by the Prussian breech-loading rifled musket in the war with Denmark, has led the Secretary of State for War to consider the expediency of arming our own troops with a similar weapon, and a committee has been appointed to report:—*First*, on the best means of converting the present 'Enfield' into a breech-loader; to enable them to do which, they have invited and received proposals from all the most eminent gunsmiths: *Second*, on the expediency of making the conversion at all.

In considering the adverse arguments, that of the expense may be eliminated, as, supposing the change to be otherwise advantageous, no economy could be more shortsighted and false than that which, to effect a present



saving, should condemn our troops to the future encounter of an enemy wielding a superior weapon against them.

The other objections which may be urged against the change are somewhat as follow :—

That there is a tendency in the soldiers, difficult, or as some say impossible, to check, to fire away their ammunition in a reckless and aimless manner under the excitement of battle ;

That this tendency would be much increased by the increased facility of rapid firing conferred by breech-loaders ;

That (assuming for the sake of argument that the breech-loader would fire two shots to the Enfield's one, which is certainly within the reality), every man would therefore require double the supply of ammunition that he now takes into action ;

That, as he cannot carry more on his person than he now carries, this would necessitate a large supply of reserve ammunition to closely accompany the troops in battle ;

And that this last would not only be inconvenient, but highly dangerous, inasmuch as any failure in the departments charged with this important service would expose the troops to the risk of finding themselves destitute of cartridges in the crisis of an engagement.

The above objections being based altogether on the assumed impossibility of controlling our soldiers in battle, to admit their validity would be to consent to the conclusion that our officers are careless and incompetent. It is wholly and solely a question of discipline. The soldiers *must*, and with proper attention would, be under such command that the voices of their officers should be heard and obeyed even in the din and confusion of a fight. It may be worth consideration whether firing should not be more in volleys by word of command, and less by independent files ; but this is only a matter of detail. Is it or is

it not the fact that the Prussians derived great advantage over their Danish adversaries from the greater rapidity of their fire? If so, of two things, one: either the same inconveniences that we apprehend must have been met and overcome by the Prussians, and we can therefore overcome them likewise; or the Prussian soldier is more intelligent and susceptible of a higher discipline than British troops.

Turning now to the arguments in favour of the breech-loader, we find—

1st. Quickness and simplicity in loading.

The breech-loader is charged by one operation, while the present weapon of our troops requires three distinct operations—charging, ramming, and capping. Owing to the complication of the latter method there arises hurry and flurry in battle; the cartridge may be inserted in the muzzle bullet foremost; in a very large number of cases it is not rammed home; and frequently the nipple is guiltless of a cap when the trigger is pulled. In the operation of capping, too, for one cap that is taken out of the pouch, two or three are often scattered on the ground: this is particularly the case in cold weather, and the Austrians, during the winter campaign in Schleswig, found great difficulty in fitting the cap on the nipple with their hands benumbed with cold.

In the breech-loading cartridge, cartridge and cap are one; the operation of loading is the simplest possible; the cartridge could not enter the chamber at all with the wrong end foremost; more than one cartridge cannot be in the barrel at the same time, as is often the case now when a cap has failed to explode, or has been forgotten; and the possibility of accident from explosion while ramming, or by the firing away of ramrods, is destroyed.

2nd. If opposed to troops armed with muzzle-loaders, the adoption of the breech-loader would double the

effective force of our infantry in battle: an inestimable advantage to a nation which can never send large armies into the field.

Supposing both sides armed with breech-loaders, then, generally speaking, the side which awaits attack behind breastworks, or indeed in any position where the ground is open to the front, would find its effective force doubled by the breech-loading arm.

And, as it has been endeavoured to show in the preceding pages that war—even an offensive warfare—must in future consist in taking up such positions as shall oblige the enemy to attack, on account of the deadly fire to which troops advancing to the attack of a position over open ground are now exposed; the consideration embodied in the last paragraph becomes, if this reasoning be correct, of paramount importance.

That the possible changes and chances of a battle would require troops, armed in whatever manner, to have a fresh supply of ammunition always within reach, is incontestable. If the adoption of breech-loaders should lead to a greater expenditure of ammunition in the course of one day than was formerly the case, a larger reserve supply would also be called for; but this is a mere matter of detail, adding indeed to the arduous labours of the military train and ordnance departments, but neither insurmountable nor even difficult under good management. But, taking into consideration the diminished waste of cartridges or caps by loss or from hasty loading, which would result from the adoption of breech-loaders, it is here contended confidently that the expenditure of ammunition in the course of a day *would not* be greater, and that it *would* be far more effective in its results, with the simple than with the complex loading weapon.

For it must be remembered, that it is not during the



general progress of a battle that the great advantage of being able to fire rapidly, as well as the consequent temptation to fire recklessly and wastefully, would be felt: it is during the fifteen, ten, or even five minutes in which the fate of the contest is usually decided by the quickest and most accurate fire. For such a crisis the men should be prepared, by being taught to feel that their honour and their lives may depend on the supply of cartridges in their pouches, and that an infantry soldier is a mere recruit who does not appreciate, as the first principle of modern warfare, '*never to throw away a shot.*'

Lastly, the one argument which is paramount, and should render the foregoing reasons superfluous, is, that the breech-loader is now the general arm of a first-class military Power, whose armies have signally experienced its advantage in actual trial; that it will, in all probability—almost certainly—be adopted by France; and that its adoption by ourselves would become therefore a logical and inevitable consequence, whatever may be the difficulties and inconveniences to be met and overcome.

The one thing to look to is that when the crisis of a battle shall arrive, English battalions shall not find themselves overmatched by enemies not more numerous, simply because the latter can shoot two for one. For such a disaster, the saving in the expense and in the difficulties attending an increased expenditure of ammunition in battle, supposing it to take place, would be a poor consolation.

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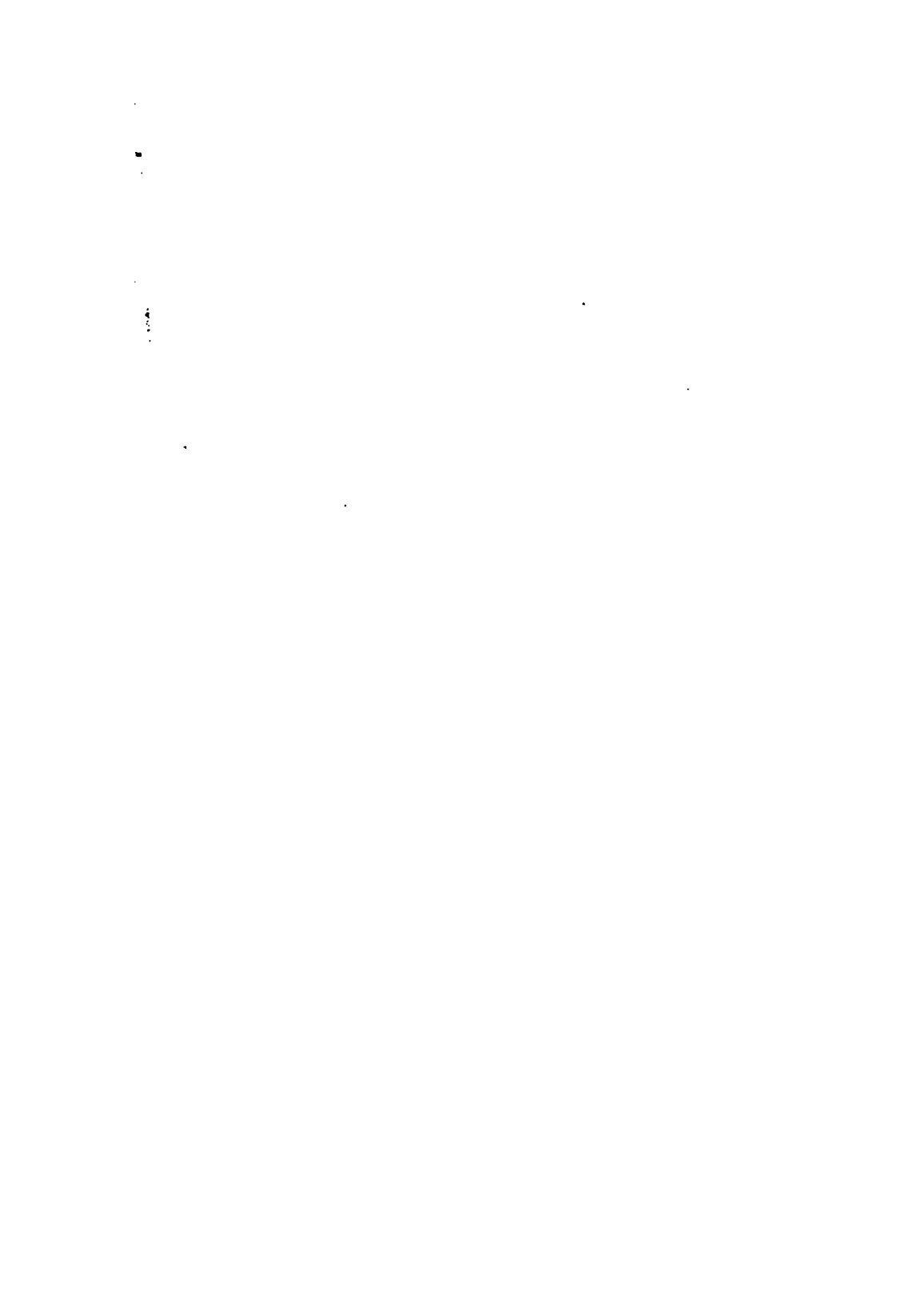
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That this tendency would be increased by the facility of rapid firing.

That (assuming for the sake of argument that the machine-loader would fire two shots to one of the rifle, certainly within the reality), the machine-gun would require double the supply of ammunition to take into action;

That, as he cannot carry more than a limited amount of ammunition, this would necessitate the ammunition to be closely accompanied by the troops.

And that this last would be highly dangerous, inasmuch as the troops would be exposed to the enemy's fire when charged with this important duty, and the troops would be exposed to the risk of finding themselves short of cartridges in the crisis of an engagement.

The above objections being assumed impossibility of contradiction, to admit their validity would be to admit that our officers are careless and that our men are careless. It is wholly and solely a question of discipline, and with proper attention to command that the voices of the machine-gunners should be heard and obeyed even in the din of battle. The machine-gun may be worth consideration when used in volleys by word of command, but this is only a question of discipline; but this is only a question of discipline.

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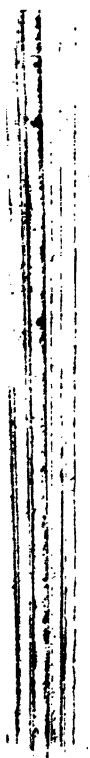
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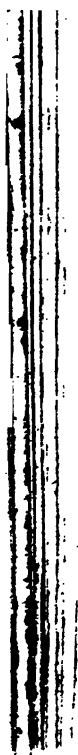




PLAN II.

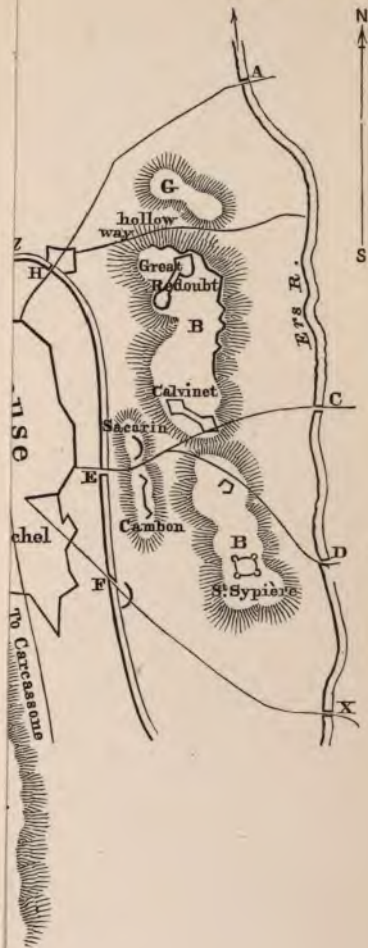


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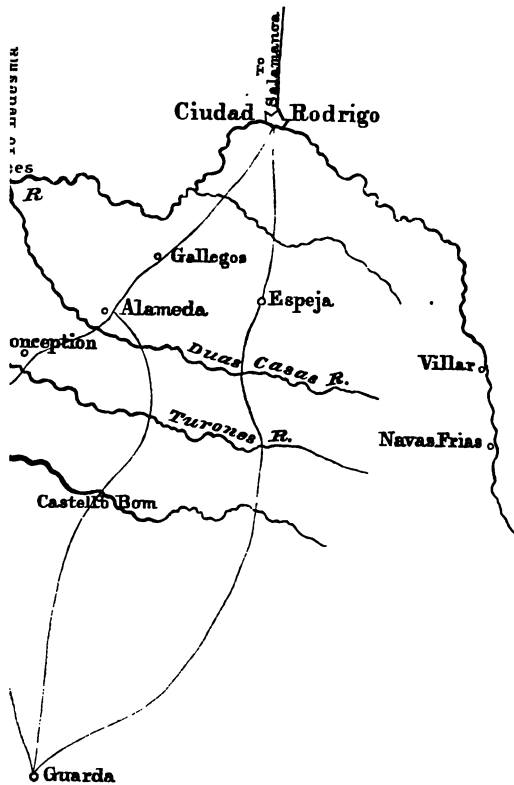
# PLAN III.



TOULOUSE.



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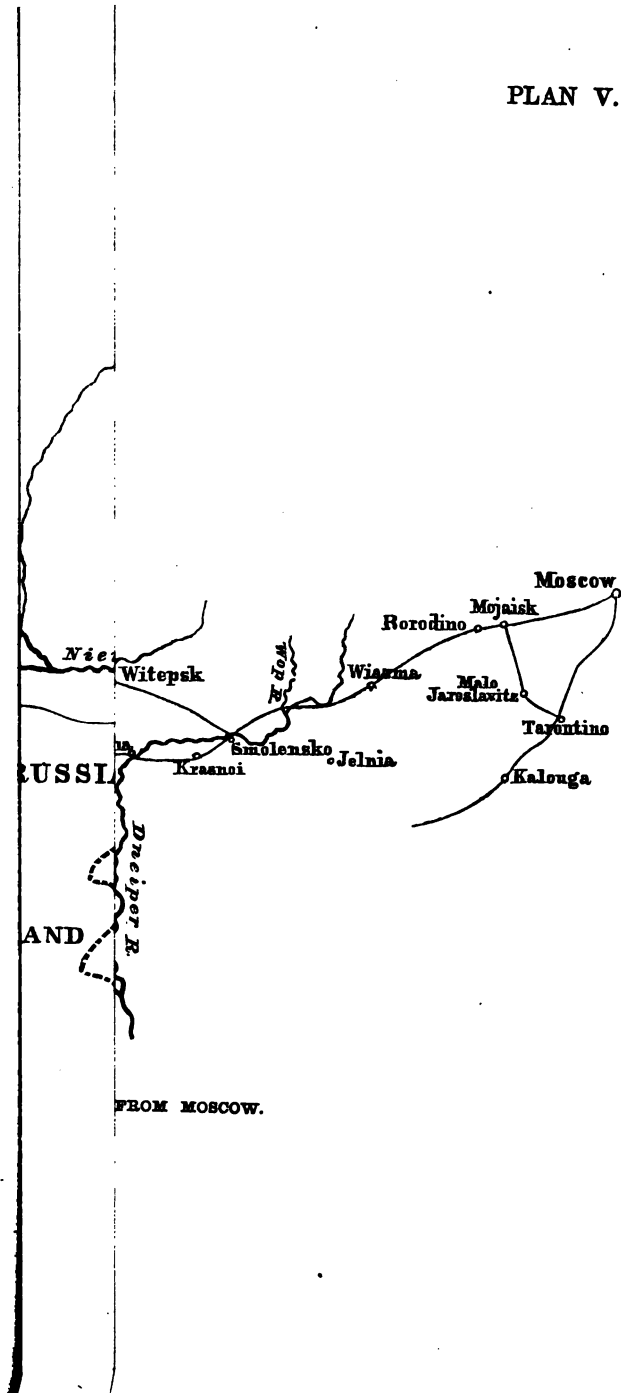


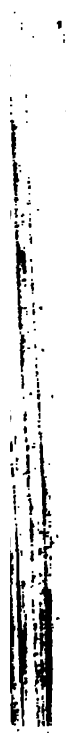
## AUFURD'S OPERATIONS





PLAN V.



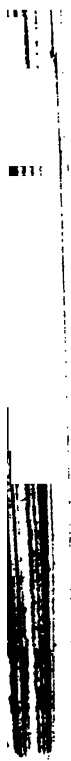




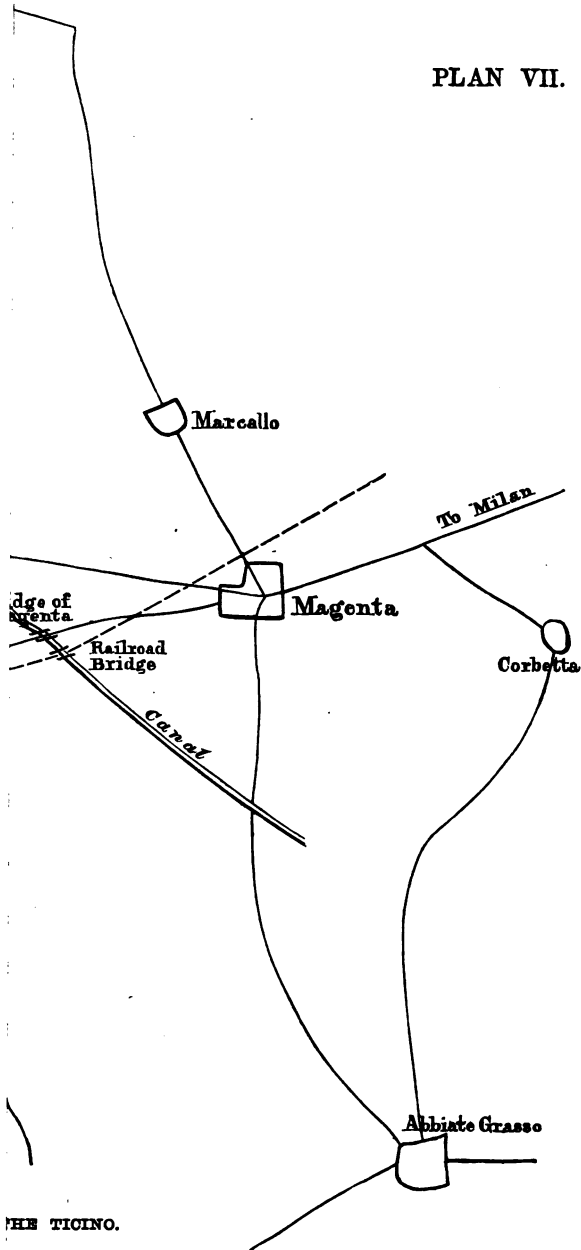
PLAN VI.



ITALY AROUND MILAN.



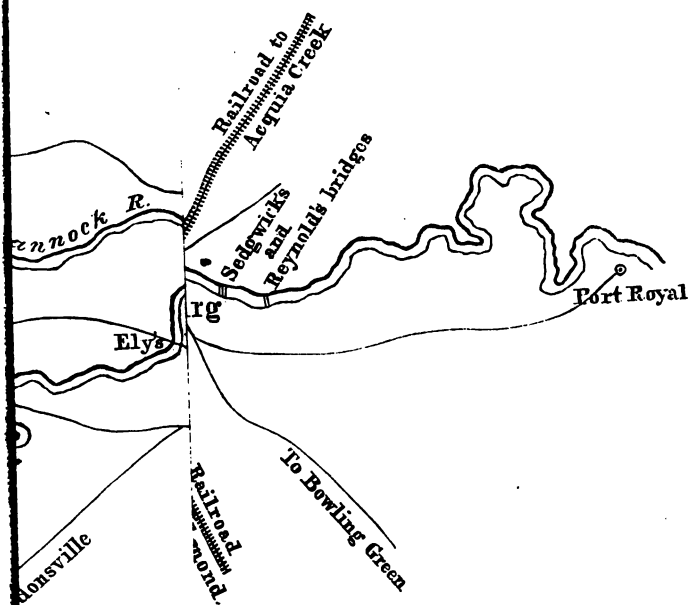
PLAN VII.







PLAN VIII.

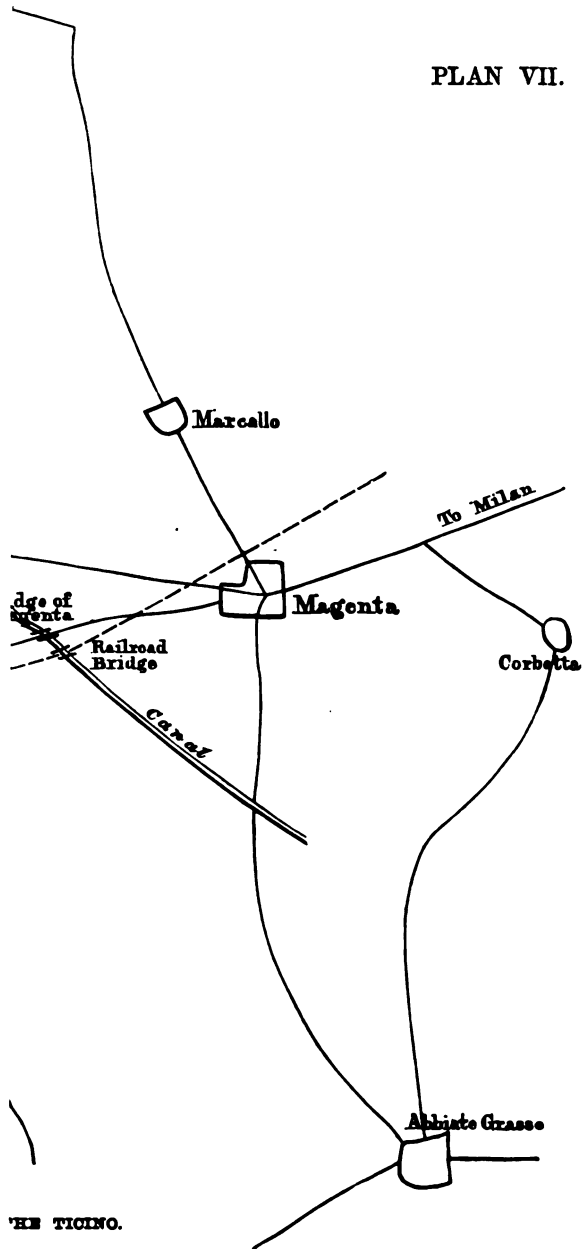


K.





PLAN VII.





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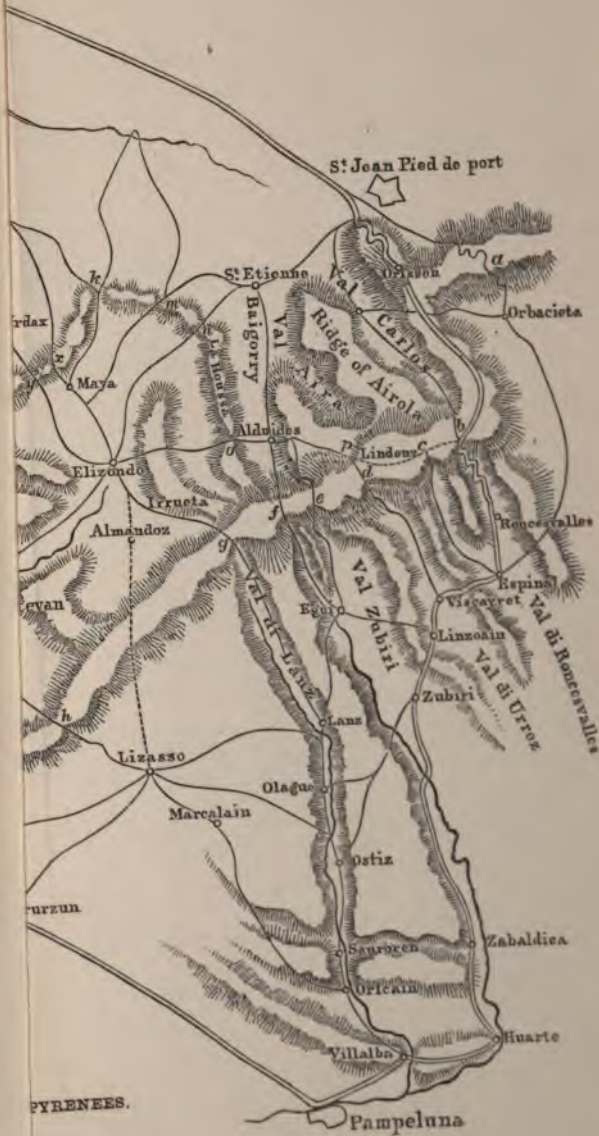
14

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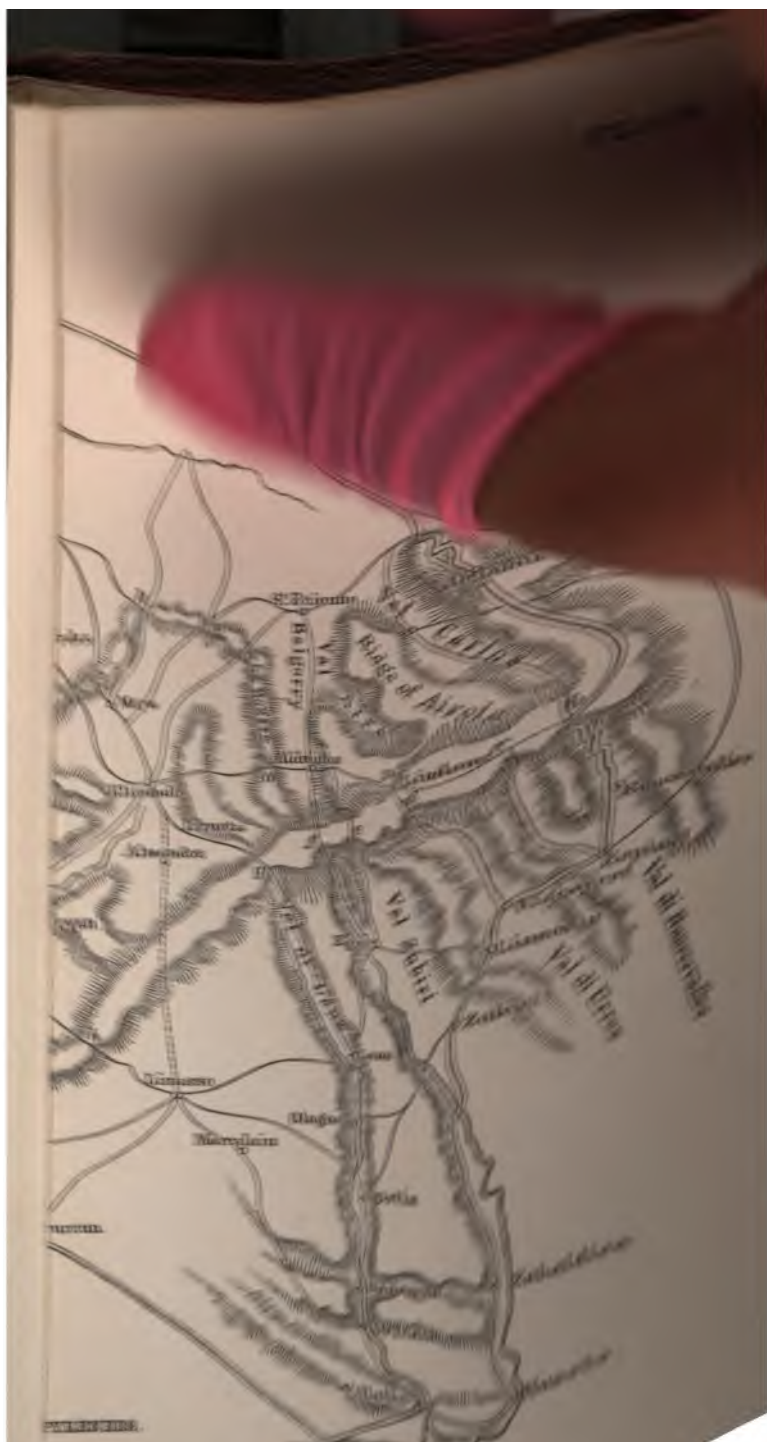


PLAN IX.









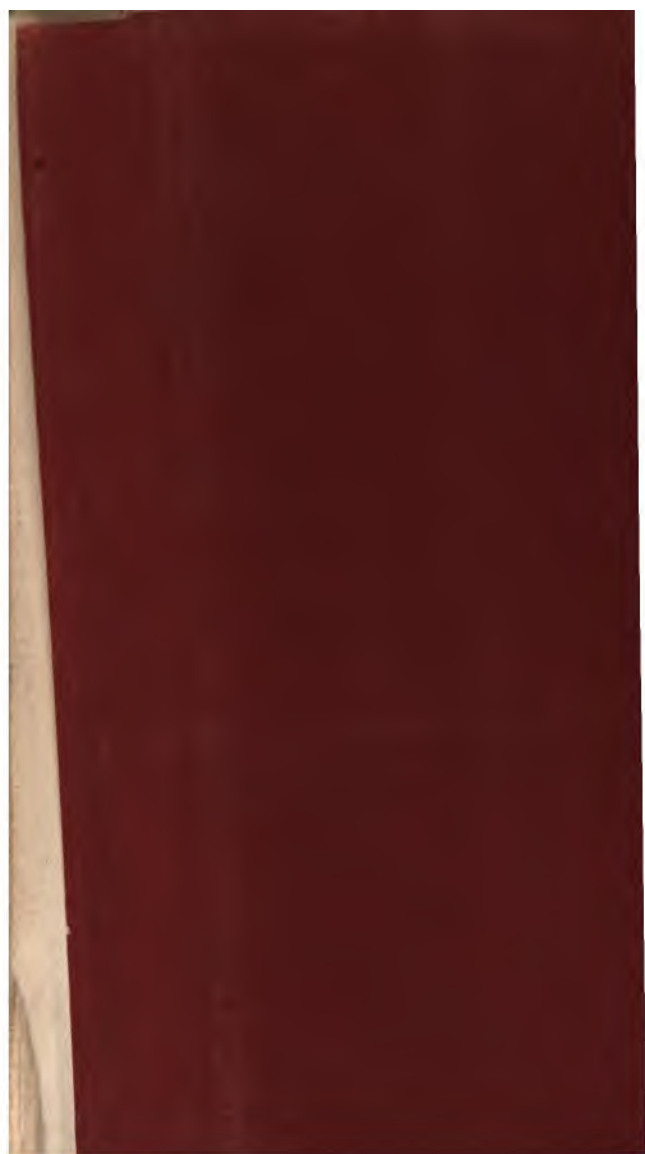
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